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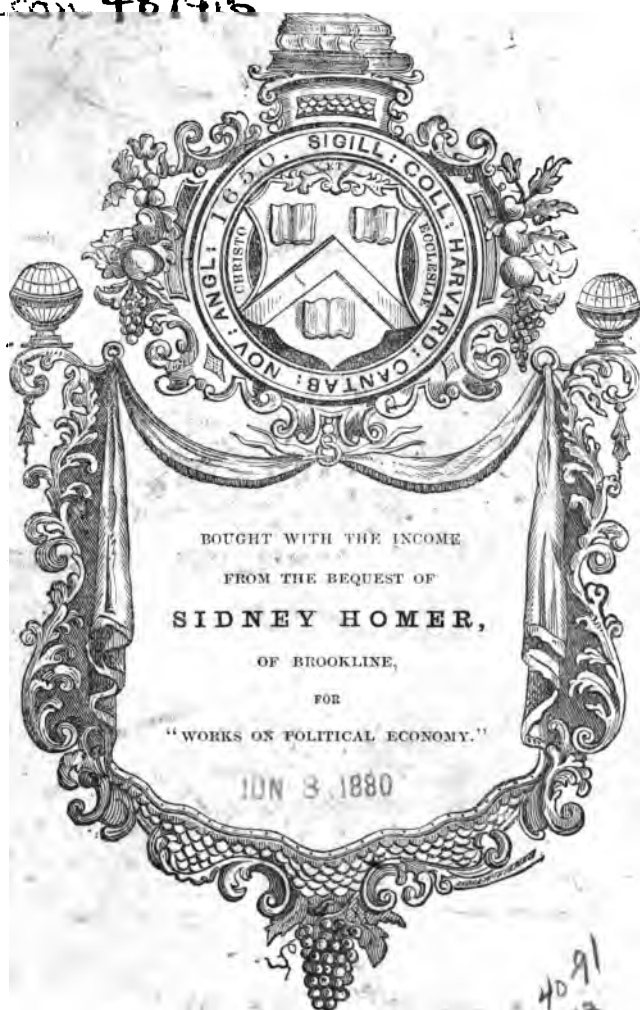
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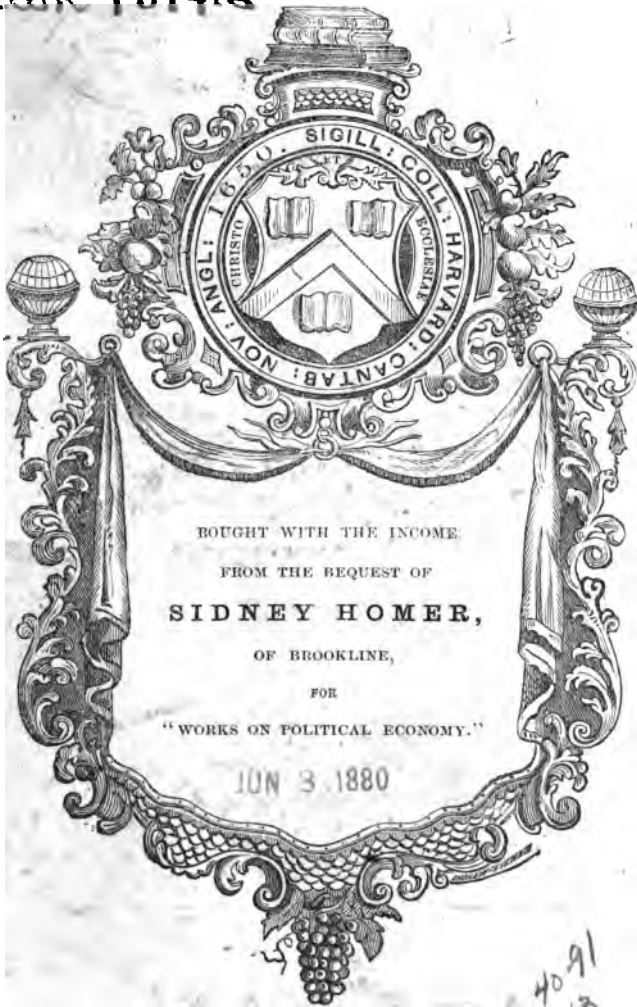
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BANK RATE  
IN  
ENGLAND, FRANCE, AND GERMANY,  
1844—1878.



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BANK RATE  
IN  
ENGLAND, FRANCE, AND GERMANY,  
1844—1878.

WITH REMARKS ON THE CAUSES WHICH INFLUENCE  
THE RATE OF INTEREST CHARGED;

AND  
AN ANALYSIS OF THE ACCOUNTS OF THE  
BANK OF ENGLAND.

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*Robert Harry* BY  
R. H. INGLIS PALGRAVE.

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"Est igitur humanitatis vestrae magnum eorum civium numerum calamitate prohibere; sapientiae videre multorum civium calamitatem a republica sejunctam esse non posse."—*Cicero pro Lege Manila*.

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## PREFACE.

THIS volume was originally planned as an investigation into the published accounts of the Bank of England alone, and it is based on the "Analysis of the Accounts of the Bank of England," which I published in 1874. But since that date the connection between the English Money Market and that of Europe generally has been drawn so much more closely together that I felt it needful to carry the inquiry further, and to include some notice of the transactions of the Banks of France and Germany. While, therefore, the analysis of the accounts of the Bank of England previously mentioned has been incorporated in these pages, much has been added, some part of which has appeared, though in a somewhat different form, in the *Economist* and the *Bankers' Magazine*. The accounts of the Bank of England, however, supply the staple of the work.

The amount of the reserve held by the Bank of England is always carefully noted by business men; and the weekly statements are invariably and closely examined as they appear. I have, therefore, thought that an analysis of these accounts might be of service to those who are engaged in business by assisting them in these investigations.

Some Returns published by order of the House of Commons, supply information which is not given in the

weekly statements. This, in particular, was the case with regard to the balances kept by the London Bankers with the Bank of England to the close of 1877. I have included the information thus furnished in this analysis, as it shows the amount of money held ready to meet the immediate requirements of business.

During the period under consideration the amounts of the balances of the London Bankers largely and progressively increased, as far as this can be traced. It is a matter of regret that the Official Returns no longer enable this point to be ascertained with accuracy. There can be little doubt that a regular publication of the amounts would be of service to the community, and no good reason can be given for this information being withheld. In times when apprehensions prevailed, the knowledge that preparation was being made to meet any difficulties which might occur would of itself tend to allay alarm, and would assist in maintaining that feeling of confidence without which it is impossible that business should be suitably carried on.

The protection of the notes of the Bank of England rather than of the deposits of the Bank, was the object of the Bank Act of 1844. I have no intention in this place to inquire into the policy on which that Act was founded, but to investigate some of the events which have occurred since it was passed. Of late years the amount of the reserve of the Bank of England has on an average increased; but the proportion borne by that reserve to the total liabilities has, on the whole, diminished. The average proportion of reserve to total liabilities was 53 per cent. for the years 1845-53; while for the years 1870-78, it was 44 per cent. The average

rate of discount, which was 3*l* 4*s* 10*d* for the earlier was 3*l* 9*s* 1*d* for the later period. Of recent years a greater number of fluctuations in the rate of discount, and, on the whole, a higher rate, has prevailed. Meanwhile a vast increase in the amount of money held by bankers on deposit has taken place. Thus while the available supply of money has increased, there have likewise been far greater fluctuations in its price.

Great instability in the rate of Discount is undoubtedly a very prejudicial thing to the interests of commerce. Such an instability tends to render the results of trade more uncertain than they otherwise would be, and hence introduces an additional element of speculation in transactions where none further is needed. Meanwhile we must bear in mind that while the reserve which the Bank of England keeps is now generally somewhat smaller in proportion to its own liabilities than it was twenty or thirty years since, it is far smaller in proportion to the liabilities of the other banks of the United Kingdom at the present time than at any earlier period. Yet it is to that reserve alone that the other banks must have recourse in any time of pressure. The maintenance of an adequate reserve is a point of primary importance to all interested in banking and in commerce generally, and every endeavour should be made which will conduce to this result.

The Directors of the Bank of England feel, no doubt satisfied that the reserve they maintain is adequate to their own requirements, but it is only needful to glance at the vast amount of Banking Deposits now held to see how entirely inadequate it is when regarded

as the reserve of all the banks of the Kingdom. Matters have gradually drifted into this position. The arrangement is an anomalous one, but what we are concerned with now is not to discuss the manner in which it has arisen, but to consider how the existing system may be strengthened and improved. The subject is almost beyond the power of any private inquirer, however diligent, however well-informed, to investigate completely; and it certainly appears that it would now be of advantage to the community if an inquiry were made into the whole bearings of the question through the instrumentality of a Government Commission to be appointed for the purpose.

It is quite a doubtful question whether even from the point of view of "profit and loss," the economy of our reserve system has not been carried too far, and whether a system in which a larger reserve was maintained would not be an advantage to the banking as well as to the mercantile community, by tending to mitigate those frequent fluctuations which now constantly characterise our money market. That the cost of the maintenance of such a reserve should fall on the Bank alone appears scarcely equitable; arrangements might, however, be made which would bring every bank in the country into connection with the Bank, and on the basis of which a suitable reserve might be maintained. The closer relations which now exist between the Money Markets of England, Europe generally, and, it should be added, of America, render this subject one of high importance to the stability of business.

R. H. INGLIS PALGRAVE.

## CHAPTER I.

### INTRODUCTION.

THE weekly return of the Bank of England is always carefully studied, as supplying much useful information on the position of the money market. The demands likely to be made on the "Reserve," and the proportion held by it to the "Liabilities," form the basis of most of those calculations which are continually being made by those engaged in business as to the probability of a rise or fall in the Bank rate of discount. The form in which the usual statement is made out supplies a great deal of information, but it leaves one or two very important points unnoticed. ^Returns, however, which have been published by order of the House of Commons, supplement the information on the subject. Of these returns the one marked No. 6 in the Appendix to the Report from the Select (Secret) Committee on Commercial Distress, House of Commons, 1848, may be cited first, as it carries the statement back to the date when the Bank Act came into operation. This return is reprinted, and continued to December, 1856, in the Appendix (No. 13) to the Report from the Select Committee on the Bank Acts, House of Commons, 1857. Subsequent returns continue a consecutive statement, on a uniform plan, from the date of the division of the



two departments of the Bank of England, in 1844, to the close of 1875, containing particulars which are not included in the ordinary returns, of the total amount of bills discounted, and total amount of temporary advances made by the Bank, and the balances of the London bankers.

The return, however, which was ordered by the House of Commons to be printed 31st May, 1877, giving the statement for the year 1876, while it separates the amounts of the balances of the Exchequer and of the London bankers from the total deposits, does not continue to furnish either the amount of "bills discounted" or of the "temporary advances," which had been uniformly given from 1844 downwards in the previous returns. The corresponding return for 1877 is likewise deficient in the same manner, and in the return for 1878 the London bankers' balances were altogether left out. These omissions are to be regretted, as much in the interest of the Bank of England itself as of the public at large. The discount of bills, and the making temporary advances, are both proper functions of a bank. In the case of the Bank of England it is especially desirable that there should be no uncertainty as to the extent of its operation on these points, as it is mainly in this manner that its control over the outer market is maintained. The full possession of that control, and the power of exercising it rapidly when circumstances render it needful, are essential to the security both of the Bank of England and of the other banks of the country, and it cannot therefore be an unimportant matter that the information which shows the action of the Bank in this respect should now no longer be supplied.

It would also be very valuable if the information given in return No. 8 in the Appendix to the Report from the Select (Secret) Committee on Commercial Distress, House of Commons, 1848, were continued to the present time. This return, which is carried back to the year 1832, through the Appendix to the Report from Select Committees on Banks of Issue, House of Com-

mons, 1840 and 1841, gives a great deal of very important information as to the working of the Bank of England. It is in no spirit of idle curiosity, with no desire to pry needlessly into the concerns of others, that the continuation of this information is sought. Those who feel, as all concerned in banking business must, that the enormous extension which that business has experienced in this country during the last thirty years, requires every safeguard to be strengthened, must regret that a closer secrecy is now maintained on matters on which more publicity was freely given at previous times when this publicity was less needed. If that information was valuable in 1832, 1844, and 1848, it would be even more valuable now.

Such information, however, as can be obtained from the materials at our command on the history of the working of the money market during the last thirty-four years may be very useful to all who are engaged in commercial pursuits. These years have witnessed a very marvellous extension of the commerce of the country in general; and the extension of banking business has fully kept pace with the increase in other directions. The Parliamentary returns relating to the Bank of England, carried on week by week, contain the record of many important events; but the very length of the returns is a bar to facility in consulting them, or in understanding the many important lessons which may be learned from their pages. It is often a difficult matter, in subjects of this nature, which depend on a vast multitude of details, to arrive at a just appreciation of the exact bearing which these details have on the questions at issue. The number of details, through their very quantity, have a tendency to obscure a distinct view of the case. It is hoped, therefore, that the analysis which follows may be of service by giving a history of the main alterations which have occurred in the position of the Bank of England during the time over which these returns extend, which may enable us to trace out some of the causes which have led to the greatly increased fluctuations which have

prevailed in the money market during some of the last few years. It should be clearly understood from the outset that the object of this work is neither a controversial investigation into the working of the Act of 1844, nor a critical inquiry into the conduct of the Bank of England. That great institution is, from its position, the acknowledged centre of our banking system; and an analysis of its transactions may enable us to see more clearly the progress of recent events in the financial world. In order to render this clear and readily intelligible, a series of tables has been drawn up. Into these the main points of the work of the Bank of England for the years from 1844 to 1878 have been condensed.

This has been done with the utmost care, and it is hoped that any error of importance has been avoided.

Since I first began to write on this subject, several events have occurred which have introduced very important influences among the money markets of Europe. The limitation in the coinage of silver by the countries forming the Latin Union; the resumption of specie payments in France, and also in the United States; the alteration in the standard of value in Germany from a silver to a gold basis—are all events which could not take place without greatly affecting this country. These events have made it desirable to carry the investigation further than was first proposed. It has not been thought needful to form a complete analysis of the transactions of the Banks of France and Germany in the same manner as those of the Bank of England. A comparison of the rates of interest charged in the three countries, and the number of the fluctuations in the rates, give what is a sufficient outline for the purpose desired—an outline of the working of the demand and supply of money in the leading countries of Europe for the time under consideration.

Tables relating to the variations in the rate of interest charged by the Banks of France and Germany, drawn up on the same plan as the corresponding tables referring to the Bank of England, have therefore been

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added, and also tables giving the number of the alterations of the rates. These are valuable, as they give an outline of the working of business in those countries; they also supply a comparative view of the movements of the rate of interest in other European centres of business which may enable us the better to understand the influences which are at work on our own.

A description of the tables which form the basis of this analysis precedes this Chapter. The table analysing the accounts of the Bank of England in a series of annual averages follows.

TABLE I.—BANK  
ANNUAL AVERAGES OF THE TRANSACTIONS OF THE

Date.	1 Annual Average of Liabilities on Deposits (Public and Private) and Bank Post Bills.	2 Proportion of Liabilities to 1844. 1844=100.	3 Annual Average of Bank Post Bills.	4 Proportion of Bank Post Bills to 1844. 1844=100.	5 Annual Average of Public Deposits.	6 Proportion of Public Deposits to 1844. 1844=100.
	£		£		£	
1844...	14,317,000	100	1,017,000	100	5,231,000	100
1845...	16,367,000	115	1,059,000	104	5,665,000	108
1846...	20,262,000	142	938,000	92	6,254,000	120
1847...	15,973,000	111	859,000	85	6,446,000	123
1848...	15,963,000	111	1,000,000	98	5,154,000	99
1849...	17,211,000	120	1,083,000	107	6,086,000	116
1850...	18,822,000	131	1,225,000	121	7,772,000	149
1851...	17,638,000	123	1,159,000	114	7,128,000	136
1852...	20,149,000	140	1,303,000	128	6,010,000	115
1853...	19,543,000	136	1,379,000	136	5,682,000	109
1854...	15,740,000	110	1,083,000	107	3,641,000	70
1855...	17,698,000	124	982,000	96	5,005,000	96
1856...	16,864,000	117	841,000	83	4,840,000	93
1857...	17,828,000	124	771,000	76	6,380,000	122
1858...	20,847,000	145	824,000	81	5,884,000	113
1859...	22,530,000	157	818,000	81	7,319,000	140
1860...	20,893,000	145	729,000	72	6,646,000	127
1861...	18,481,000	130	670,000	66	5,281,000	101
1862...	22,414,000	156	720,000	71	7,052,000	135
1863...	21,946,000	153	644,000	63	7,327,000	140
1864...	20,600,000	144	531,000	52	6,870,000	132
1865...	21,200,000	148	493,000	49	6,707,000	128
1866...	22,603,000	158	539,000	53	5,318,000	102
1867...	26,106,000	182	504,000	50	6,812,000	130
1868...	25,619,000	179	544,000	54	4,906,000	94
1869...	23,713,000	165	497,000	49	5,129,000	98
1870...	26,358,000	184	623,000	61	7,635,000	146
1871...	29,022,000	202	629,000	62	7,071,000	135
1872...	29,268,000	204	407,000	40	8,875,000	169
1873...	28,900,000	202	405,000	40	9,422,000	180
1874...	25,476,000	178	378,000	37	6,251,000	120
1875...	26,768,000	187	355,000	35	5,223,000	99
1876...	30,616,000	214	330,000	32	6,793,000	130
1877...	28,732,000	200	320,000	31	5,838,000	112
1878...	29,077,000	203	288,000	28	5,560,000	106

## OF ENGLAND.

BANK OF ENGLAND FOR THE YEARS 1844-1878.

7	8	9	10	11	12	
Annual Average of Private Deposits.	Proportion of Private Deposits to 1844. 1844=100.	Annual Average of Total Deposits.	Proportion of Total Deposits to 1844. 1844=100.	Annual Average of London Bankers' Balances, Included in Private Deposits (Col. 7).	Proportion of London Bankers' Balances to 1844. 1844=100.	Date.
£		£		£		
8,069,000	100	13,300,000	100	977,000	100	1844
9,643,000	120	15,308,000	115	1,256,000	128	1845
13,070,000	161	19,324,000	145	1,558,000	160	1846
8,668,000	107	15,114,000	113	1,467,000	150	1847
9,809,000	122	14,963,000	112	2,359,000	241	1848
10,042,000	124	16,128,000	121	2,131,000	218	1849
9,825,000	122	17,597,000	132	1,656,000	170	1850
9,351,000	116	16,479,000	124	1,666,000	170	1851
12,886,000	158	18,846,000	141	3,184,000	326	1852
13,482,000	167	19,164,000	143	2,259,000	231	1853
11,016,000	136	14,657,000	110	2,692,000	275	1854
11,711,000	145	16,716,000	126	3,065,000	313	1855
11,183,000	139	16,023,000	120	3,032,000	310	1856
10,677,000	133	17,057,000	128	3,274,000	335	1857
14,139,000	175	20,023,000	150	4,639,000	475	1858
14,393,000	178	21,712,000	163	4,256,000	435	1859
13,518,000	167	20,164,000	151	4,283,000	438	1860
12,530,000	155	17,811,000	134	4,185,000	428	1861
14,642,000	181	21,694,000	163	5,030,000	515	1862
13,975,000	173	21,302,000	160	4,726,000	484	1863
13,199,000	164	20,069,000	150	4,899,000	502	1864
14,000,000	173	20,707,000	155	5,038,000	512	1865
16,746,000	207	22,064,000	165	6,259,000	641	1866
18,790,000	233	25,602,000	192	6,689,000	685	1867
20,169,000	250	25,075,000	188	6,801,000	696	1868
18,087,000	224	23,216,000	174	6,479,000	663	1869
18,100,000	224	25,735,000	193	6,618,000	678	1870
21,322,000	264	28,393,000	213	8,390,000	859	1871
19,986,000	248	28,861,000	216	7,609,000	778	1872
19,073,000	236	28,495,000	214	8,586,000	878	1873
18,847,000	233	25,098,000	189	8,341,000	854	1874
21,190,000	263	26,413,000	198	10,324,000	1055	1875
23,493,000	291	30,286,000	228	11,851,000	1212	1876
22,574,000	279	28,412,000	213	9,543,000	976	1877
23,229,000	287	28,789,000	216	—	—	1878

TABLE I. *Continued*—BANK  
ANNUAL AVERAGES OF THE TRANSACTIONS OF THE

Date	13 Annual Average Reserve of Bank of England.	14 Pro- portion of Reserve to 1844. 1844 = 100.	15 Propor- tion per Cent. of Reserve to Lia- bilities on Deposits and Bank PostBills.	16 Proportion per Cent. of Reserve to Liabilities after Deducting Bankers' Balances from Reserve and Liabilities.	17 Propor- tion per Cent. of London Bankers' Balances to Reserve.	18 Annual Average of Other Securities.	19 Pro- portion of Other Securities to 1844. 1844 = 100.
	£		%	%	%	£	
1844	8,500,000	100	59	56	11	9,472,000	100
1845	8,516,000	100	52	48	15	12,215,000	129
1846	8,539,000	100	42	37	18	16,661,000	176
1847	5,291,000	62	33	26	27	17,241,000	182
1848	9,784,000	115	61	54	24	11,967,000	126
1849	10,694,000	126	62	57	20	10,222,000	108
1850	11,219,000	132	59	55	15	11,048,000	116
1851	9,103,000	107	52	46	18	12,642,000	133
1852	12,764,000	150	63	56	25	11,398,000	120
1853	8,907,000	103	46	38	25	15,086,000	159
1854	7,290,000	86	46	35	37	14,732,000	155
1855	8,366,000	98	47	36	37	15,316,000	162
1856	5,772,000	68	34	19	52	17,067,000	180
1857	5,347,000	63	30	14	61	20,392,000	215
1858	12,037,000	141	58	45	39	16,316,000	172
1859	11,076,000	129	49	37	39	18,196,000	192
1860	8,451,000	99	40	25	51	20,511,000	216
1861	7,611,000	89	41	24	55	18,738,000	198
1862	10,194,000	120	45	29	45	18,987,000	200
1863	8,536,000	100	39	22	55	20,176,000	212
1864	7,478,000	88	36	16	66	20,296,000	214
1865	8,089,000	95	38	19	63	20,568,000	217
1866	6,745,000	79	30	3	93	22,962,000	242
1867	12,906,000	152	49	32	52	18,235,000	192
1868	11,903,000	140	46	27	57	17,647,000	186
1869	10,320,000	121	43	22	62	16,822,000	178
1870	12,435,000	146	47	29	53	18,622,000	197
1871	14,162,000	166	48	28	59	18,803,000	198
1872	12,122,000	141	41	21	63	21,466,000	226
1873	12,051,000	141	41	17	71	21,643,000	229
1874	11,035,000	129	43	15	75	18,487,000	195
1875	11,597,000	136	43	6	89	19,163,000	202
1876	15,962,000	187	52	22	74	17,502,000	185
1877	12,478,000	146	43	15	77	18,861,000	200
1878	10,879,000	127	37	—	—	20,424,000	215

## OF ENGLAND.

BANK OF ENGLAND FOR THE YEARS 1844-1878.

20 Annual Average of "Other" Securities after Deducting Bills Discounted and Temporary Advances.	21 Proportion of "Other" Securities after Deducting Bills Dis- counted and Temporary Advances to the Same in 1844. 1844 = 100.	22 Annual Average of Bills Discounted.	23 Propor- tion of Bills Dis- counted to 1844. 1844 = 100.	24 Propor- tion per Cent. of Bills Dis- counted to Total of "Other" Securi- ties.	25 Annual Average of Temporary Advances.	26 Propor- tion of Tempo- rary Advances to 1844. 1844 = 100.	Date
£		£		%	£		
5,467,000	100	2,690,000	100	28	1,315,000	100	1844
5,732,000	105	4,680,000	174	38	1,803,000	137	1845
5,788,000	106	9,030,000	334	54	1,843,000	140	1846
5,803,000	106	9,616,000	357	56	1,822,000	139	1847
6,216,000	113	4,289,000	159	35	1,462,000	111	1848
6,655,000	122	2,590,000	96	25	977,000	74	1849
6,540,000	119	2,660,000	99	24	1,848,000	140	1850
7,004,000	128	4,544,000	169	36	1,094,000	83	1851
7,798,000	143	3,020,000	112	27	580,000	44	1852
8,028,000	146	6,137,000	228	41	921,000	70	1853
8,007,000	146	6,086,000	226	41	689,000	48	1854
8,630,000	157	6,004,000	223	39	682,000	52	1855
8,487,000	155	6,700,000	249	39	1,880,000	143	1856
9,068,000	166	9,474,000	352	46	1,850,000	141	1857
11,101,000	202	4,620,000	172	28	595,000	45	1858
11,648,000	212	5,570,000	207	30	978,000	74	1859
11,078,000	201	8,091,000	301	39	1,342,000	102	1860
11,136,000	202	6,586,000	244	35	1,016,000	77	1861
11,207,000	205	6,239,000	232	33	1,541,000	117	1862
10,546,000	192	7,402,000	275	37	2,228,000	169	1863
9,703,000	177	8,600,000	320	42	1,998,000	151	1864
9,525,000	174	8,601,000	320	42	2,442,000	185	1865
9,778,000	179	9,631,000	358	42	3,553,000	270	1866
10,575,000	193	5,846,000	217	32	1,814,000	138	1867
10,783,000	197	5,030,000	187	28	1,834,000	139	1868
9,165,000	167	5,808,000	216	34	1,849,000	140	1869
8,508,000	155	6,418,000	239	34	3,696,000	281	1870
9,554,000	174	6,411,000	239	34	2,838,000	215	1871
10,622,000	194	6,945,000	258	32	3,899,000	296	1872
10,999,000	201	7,737,000	287	36	2,907,000	220	1873
11,080,000	201	4,665,000	173	25	2,742,000	208	1874
11,429,000	209	4,402,000	164	23	3,332,000	253	1875
—	—	—	—	—	—	—	1876
—	—	—	—	—	—	—	1877
—	—	—	—	—	—	—	1878



TABLE I. *Continued*—BANK  
ANNUAL AVERAGES OF THE TRANSACTIONS OF THE

Date	27 Annual Average of Provincial Circulation of Bank of England Notes.	28 Proportion per Cent. of Provincial Circulation to Total Circulation.	29 Annual Average of London Circulation of Bank of England Notes.	30 Proportion per Cent. of London Cir- culation to Total Circulation.	31 Annual Average of Total Note Circu- lation of Bank of England.	32 Proportion of Total Circulation to 1844. 1844=100.
	£	%	£	%	£	
1844	6,510,000	32	13,740,000	68	20,250,000	100
1845	7,130,000	34	13,544,000	66	20,674,000	102
1846	6,770,000	33	13,482,000	67	20,252,000	100
1847	6,530,000	34	12,593,000	66	19,123,000	94
1848	5,830,000	32	12,256,000	68	18,086,000	89
1849	5,900,000	32	12,538,000	68	18,438,000	91
1850	6,260,000	32	13,188,000	68	19,448,000	96
1851	6,420,000	33	13,040,000	67	19,468,000	96
1852	6,940,000	31	14,970,000	69	21,910,000	108
1853	7,810,000	34	14,792,000	66	22,602,000	111
1854	7,380,000	36	13,308,000	64	20,688,000	102
1855	7,040,000	35	12,790,000	65	19,830,000	98
1856	6,970,000	35	12,697,000	65	19,667,000	97
1857	7,000,000	36	12,467,000	64	19,467,000	96
1858	6,880,000	34	13,368,000	66	20,248,000	100
1859	7,660,000	36	13,666,000	64	21,326,000	105
1860	7,910,000	37	13,342,000	63	21,252,000	105
1861	7,390,000	37	12,602,000	63	19,992,000	99
1862	7,480,000	36	13,355,000	64	20,835,000	103
1863	7,440,000	36	13,224,000	64	20,664,000	102
1864	7,570,000	37	13,035,000	63	20,605,000	102
1865	7,720,000	36	13,397,000	64	21,117,000	104
1866	8,480,000	37	14,679,000	63	23,159,000	114
1867	8,610,000	37	14,828,000	63	23,438,000	116
1868	8,990,000	38	14,942,000	62	23,932,000	118
1869	8,860,000	38	14,623,000	62	23,483,000	116
1870	8,830,000	38	14,497,000	62	23,327,000	115
1871	9,320,000	38	15,096,000	62	24,416,000	120
1872	9,882,000	39	15,641,000	61	25,523,000	126
1873	9,999,000	39	15,685,000	61	25,645,000	126
1874	10,154,000	38	16,110,000	62	26,264,000	130
1875	10,383,000	38	16,963,000	62	27,346,000	135
1876	—	—	—	—	27,734,000	137
1877	—	—	—	—	27,895,000	138
1878	—	—	—	—	28,058,000	138

NOTE.—It was notified on the publication of the Return of the Bank of England for the week ending Wednesday, January 8, 1873, that, with regard to the Deposits in the Return then issued, the practice was commenced of placing the Chancery Balances under the head of Government Deposits instead of under that of the ordinary Deposits of the public as heretofore. The average amount is about £1,000,000, and to that extent, therefore, the respective totals have undergone transposition. This must be borne in mind in comparing the amounts of the Private Deposits from 1844 to 1872, and from 1873 onwards.

## OF ENGLAND.

## BANK OF ENGLAND FOR THE YEARS 1844-1878.

33	34	35	36	37	38	
Annual Average of Coin and Bullion.	Proportion of Bullion to 1844. 1844=100.	Proportion per Cent. of Bullion to Liabilities on Deposits and Bank Post Bills.	Proportion per Cent. of Bullion to Circulation.	Proportion per Cent. of Bullion to Liabilities on Deposits and Circulation Combined.	Annual Average of Minimum Rate of Discount.	Date.
£		%	%	%	£ s. d.	
14,664,000	100	*	72	42	2 10 0	1844
15,243,000	104	93	74	41	2 13 8	1845
14,785,000	101	73	73	36	3 6 6	1846
10,428,000	71	65	54	30	5 3 6	1847
13,872,000	95	87	77	41	3 14 5	1848
15,161,000	103	88	82	42	2 18 7	1849
16,636,000	113	88	86	43	2 10 1	1850
14,564,000	99	82	75	39	3 0 0	1851
20,587,000	140	†	94	49	2 3 0	1852
17,516,000	119	90	78	41	3 13 10	1853
13,997,000	95	89	68	38	5 2 3	1854
14,181,000	97	80	71	38	4 17 10	1855
10,932,000	75	65	56	30	6 1 2	1856
10,118,000	69	57	52	27	6 13 3	1857
17,847,000	122	86	88	43	3 4 7	1858
17,928,000	122	80	84	41	2 14 7	1859
15,239,000	104	73	72	36	4 3 7	1860
13,009,000	89	71	65	34	5 5 4	1861
16,380,000	112	73	78	38	2 10 7	1862
14,567,000	99	66	70	34	4 8 2	1863
13,482,000	92	65	65	33	7 8 0	1864
14,546,000	99	68	69	34	4 15 4	1865
14,887,000	101	65	64	33	6 19 0	1866
21,353,000	145	82	91	43	2 10 9	1867
20,838,000	142	81	87	42	2 1 11	1868
18,825,000	128	79	80	40	3 4 2	1869
20,776,000	142	79	89	42	3 2 0	1870
23,588,000	161	81	96	44	2 17 8	1871
22,585,000	154	77	88	41	4 2 0	1872
22,665,000	154	78	88	41	4 15 10	1873
22,294,000	152	87	85	43	3 13 10	1874
23,923,000	163	90	88	44	3 4 8	1875
28,695,000	196	93	†	49	2 12 1	1876
25,374,000	173	88	91	45	2 18 0	1877
23,952,000	163	82	85	42	3 15 8	1878

NOTE.—During the years 1844-53 the Bank always held a proportion of Silver Bullion This is included in the amounts given in Col. 33 of this Table. The stock of Silver thus held is shown in Table XIV., page 126.

\* Average of Bullion  $2\frac{1}{2}$  per cent. more than Liabilities.

† Average of Bullion nearly  $1\frac{1}{2}$  per cent. more than Liabilities.

‡ Average of Bullion  $3\frac{1}{2}$  per cent. more than Circulation.

## CHAPTER II.

### THE DEPOSITS HELD BY THE BANK OF ENGLAND, AND THE RESERVE OF THE BANK OF ENGLAND.

WE will now proceed to the examination of the tables, which are drawn up for the purpose of assisting us to form a complete analysis of the accounts of the Bank of England. The Capital of the Bank of England is the largest of any known bank in the world, and amounts to £14,553,000; the Rest, or accumulated and undivided profit, averages about 3 millions more. The total capital available belonging to the Bank, without taking the note issue into consideration, is therefore about 17½ millions. Col. 9 of Table I. contains the yearly average of the total deposits of the Bank of England. Col. 1 contains the yearly average of the total liabilities of the Bank of England on deposits and Bank post bills. From this point of view we need not take the Bank note circulation into account, as that concerns the Issue Department and not the Banking Department of the Bank of England; the only liabilities, therefore, which have to be taken into consideration besides the deposits are the seven-day and other bills. These have declined recently. From averaging more than £1,000,000 in

1844, they have diminished to less than £300,000 in 1878. In consequence, it will be observed that the amounts in col. 1 do not very greatly differ from those in col. 9, for the last ten or twelve years. To render the statement more clear, a column marked 2 has been added, in which the proportion is given which the amounts of the total liabilities under these heads bore to that in 1844. By looking down these columns we shall see that it has not been till within the last eighteen or twenty years that the average deposits of the Bank have exceeded, or much exceeded, its capital; even at the present date the deposits are only about equal to twice the capital. This is a very unusually strong position for any bank to occupy. The capital of most banks bears generally but a comparatively small proportion to the deposits. In Scotland the proportion has of late years been about one-sixth. In England a proportion of an eighth, or even smaller, is not unusual. The position of the Bank of England, therefore, in this respect is unusually and exceptionally strong. During the time under our notice a very considerable increase in the deposits and liabilities of the Bank has taken place. The liabilities, which averaged about  $14\frac{1}{2}$  millions in 1844, averaged more than 29 millions in 1878, having thus doubled in the course of that time; and this growth, as will be seen by a reference to the table, has been gradual and continued. In a similar manner, though not in a like proportion, the average reserve has increased. The annual average of the reserve, with a statement of the proportion each year bears to 1844, will be found in cols. 13 and 14. The average reserve, from being  $8\frac{1}{2}$  millions in 1844, has increased to 11 millions in 1878. In col. 15 is given the average proportion of reserve to the liabilities on deposits and Bank post bills. This is generally very considerable. It has been as high as 63 per cent. in 1852; it was as low as 30 per cent. in 1866. It rose in the next year to 49 per cent., and has never averaged less than 41 per cent. since, till 1878, when the proportion was only 37 per cent. In looking down col. 15,

a distinct, though gradual, diminution in the proportion of the reserve to the liabilities becomes obvious. And it is not only the proportion which has diminished; the character of the demands which may be made upon the reserve has, during the last twenty-five years, undergone a great, though a gradual alteration. This has been caused by the great increase in the balances which other bankers have kept with the Bank of England. The returns on which this analysis is based contain a statement of the balances which the London bankers have kept with the Bank of England. We will now proceed to consider the amounts of these balances, and the proportion which they bear to the banking reserve.

Col. 11 contains the annual average of the London bankers' balances. In these there is a very considerable and progressive increase, far larger than the increase in the reserve itself. That there had been a great increase of late years was a matter of conjecture, but the particulars are not given in the weekly statements; and it is only the annual return which supplies this valuable information. The average amount, which was less than 1 million in 1844, had become more than  $9\frac{1}{2}$  millions in 1877, the latest date to which the information can at present be given. By the balances of "the London bankers," it is understood that the balances of "the clearing bankers" are described. There are, therefore, doubtless other amounts than these belonging to bankers, and really forming a portion of the general reserve of bankers in the aggregate on deposit with the Bank. There are now many important banks located in the metropolis, besides the London banks properly so called. There are Scotch banks, Irish banks, colonial banks, foreign banks, all doing large businesses in London, and doubtless keeping corresponding sums of money in reserve. There are also large sums of money doubtless kept with the branches of the Bank of England at Manchester, at Liverpool, and elsewhere, by provincial banks, which often do business on a large scale, quite comparable with that of many London

banks. These sums are all, properly speaking, "bankers' balances," and the amount being kept for the same purpose, should be included in the same statement. But we can only deal with the figures as stated in the published returns. The increase of the figures is progressive, and proceeds in a far more rapid proportion than the increase of the reserve of the Bank of England itself, or of any other branch of its business. Col. 12 contains the proportion which the balances of the London bankers bore during each year to their amount in 1844, and enables us to follow their fluctuations with facility. In col. 17 the proportion per cent. of the average bankers' balances to the reserve is given. From being only 11 per cent. of the total reserve in 1844, the proportion increased to 93 per cent. in 1866; and, though it has not always remained at that high figure, in 1877 it was 77 per cent. Thus, from being but a small fraction of the reserve in the early years over which the table extends, the amount has increased to being fully three-quarters of the average reserve at the present time. It is the practice of the London banks to keep their principal reserve against immediate demands with the Bank of England, as being the easiest and safest plan. And as their business has extended, so they have also increased the amounts on deposit with the Bank of England. As far as the connection between the two can be traced, it appears that the amounts of the bankers' balances (the bankers' reserves) are somewhat larger now in proportion to their liabilities than they were twenty-five years ago; while the reserve of the Bank of England itself is somewhat smaller. No doubt a very considerable portion of the increase in the balances of the London bankers is due to the necessity of holding larger sums at the Bank of England, consequent on the improvements in the Clearing House system, and the admission of the principal London joint stock banks to that establishment, arranged in the years 1853 and 1854. The effect of those alterations may be traced in the diminution of the metropolitan note circulation of the Bank of England. The circulation, as

distinguished between that issued in London and the provinces, is given in cols. 27 and 29 of this table. A distinct diminution in the metropolitan circulation is observable at the date just named. And from that date also the proportion borne by the balances of the London bankers to the reserve of the Bank of England, which had not ever previously exceeded 20 per cent. of that reserve, rises, till, as previously mentioned, in recent years it became usually about three-quarters of the reserve.

The enormous amounts which pass through the Clearing House, especially on Stock Exchange "settling days," when totals of 30 millions, 40 millions, and occasionally larger sums still are cleared, leave very large balances to be adjusted through the "clearing bankers" account with the Bank of England. Due preparation has to be made to meet these balances, and very large amounts are required on these occasions.

What is paid away by one bank, however, in this manner is received by another. The "money" remains equally with the Bank of England, whether it stands to the credit of one bank or of another bank. Taking the amounts held on deposit by the bankers in London into consideration, and the demands which may be made on them on that account, it would appear that the balances which they keep with the Bank of England rather represent what should, with strictest accuracy, be called their "Till Money" than their "Reserve." "Till Money," as every one concerned in business knows, is the amount which every banker is bound to keep close at hand ready to meet the calls of the moment. It is indispensable to the proper conduct of a business, but it cannot be looked on as a "Reserve." A reserve, though equally needed to meet immediate calls, must be on a far larger scale than the mere amount of cash necessarily held in this manner. And taking into consideration, as just mentioned, the vast amounts of deposits with the bankers in London, and the demands which may be made on them at any time, the balances they keep with the Bank of England must be considered

rather as the cash they need for immediate requirements, transferred for convenience sake to the custody of the Bank of England, than a really available banking reserve.

The growth and development of the London bankers' balances will be more clearly shown if we divide the period from 1846 to 1877, into four groups of eight years each. The averages are then as follows:—

	Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of Bankers' Balances to Reserve.
Averages of the years 1846-53 .....	52	21
"      "      1854-61 .....	43	45
"      "      1862-69 .....	42	60
"      "      1870-77 .....	45	70

In the earliest group, the proportion of the reserve was more than half the liabilities. This proportion, it will be seen on the whole, declines, while the proportion which the balances of the London bankers bear to the banking reserve itself, steadily increases. As the balances of the London bankers kept with the Bank of England are included among the total deposits of the Bank, it becomes clear how very considerable a part of the increase of those deposits is due to this source. The general effect may be traced by comparing the amounts in col. 9 with those in col. 11. It might be thought that these deposits are exactly those which are the most certain to diminish in times of pressure, but, on the contrary, they are certain to rise at such a time. Thus they greatly increased during the panics of 1857 and 1866. Between the 4th and the 25th of November, 1857, the bankers' balances increased 2 millions; from £3,400,000 on the 4th November, to £5,400,000 on the 25th November. In 1866, the action of the bankers was more rapid. On the 9th May, 1866, their balances were £5,000,000; by the 16th they had increased nearly 3 millions, the figures being £7,900,000. Beyond doubt, a great portion of these sums had been derived from the Bank of England itself, as the temporary ad-



vances during that time increased nearly 5 millions, and the amount of bills discounted also increased to about the same extent. The reserve of the Bank of England had diminished during the same time, from the 9th to the 16th May, more than 4 millions, from £4,900,000 on the earlier date, to £700,000 on the later. A great portion of that amount had undoubtedly been drawn by the London bankers. The immediate response to the call of necessity speaks very well for the manner in which the reserves of money at short dates were placed, for the prudence with which the banking business of the country generally was carried on, and also for the liberality shown by the Bank at a period of great national peril.

A more recent instance of the manner in which the balances of the London bankers become augmented in any time of anxiety was shown in the year 1875. On May 31st in that year the failure of Messrs. Sanderson and Co., the Discount Brokers, of Lombard Street, was announced simultaneously with that of the Aberdare and Plymouth Iron Companies, some anxiety having existed for a short time previous; and on June 15th the bankruptcy of Messrs. A. Collie and Co. took place, accompanied with the downfall of a host of minor traders who were involved in their ruin.

The influence of these events on the balances of the London bankers was very remarkable. The particulars are as follows :—

**BALANCES OF LONDON BANKERS WITH BANK OF ENGLAND.**

1875.	£
May 5 .....	7,072,000
12 .....	8,346,000
19 .....	7,274,000
26 .....	10,017,000
June 2 .....	11,857,000
9 .....	10,497,000
16 .....	9,902,000
23 .....	12,399,000

A very great rise also took place in the "other" deposits of the Bank of England in October, 1878. On the 2nd of that month the stoppage of the City of Glasgow Bank was announced. The movement in the

“other” deposits of the Bank, consequent on this event, was as follows :—

## OTHER DEPOSITS OF THE BANK OF ENGLAND.

1878.		£
September	25.....	20,087,459
October	2.....	21,938,505
	9.....	25,967,071
	16.....	27,321,433
	23.....	27,859,388

A large portion of this increase was attributed at the time to the bankers' accounts. Certain information at the moment would have been very valuable, as tending to allay needless alarm. Suitable precautions against danger sometimes prevent that danger from taking place, and on such occasions it is very desirable that the extent of the precautions taken should be known.

A table follows this chapter, giving the averages of the liabilities in the Banking Department and the reserve of the Bank of England, month by month, for the years 1844-1878. On an average, it will be seen that the liabilities have been during that period at their lowest point in the month of November, and that the proportion of the reserve to the liabilities has been at the lowest point during the months of October and December. The proportions of the monthly fluctuations during each year are also interesting. They retrace to a great extent the financial history of each year.

TABLE II.—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND FROM 1845 TO 1878, SHOWING THE PROPORTION OF RESERVE TO LIABILITIES.

1845.					
	Liabilities, Average of Year, £16,367,500.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,516,583.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 52 per Cent.
	£		£		
January .....	13,989,000	85	8,400,000	99	60
February .....	14,734,000	90	8,991,000	106	61
March .....	17,769,000	109	10,219,000	120	57
April .....	16,526,000	101	8,958,000	105	54
May .....	15,574,000	95	9,294,000	109	60
June .....	17,890,000	109	10,352,000	122	58
July .....	15,984,000	98	8,814,000	103	55
August .....	15,297,000	93	8,323,000	98	54
September ...	16,957,000	103	8,795,000	103	52
October .....	16,523,000	101	6,767,000	79	41
November ...	16,397,000	100	6,182,000	73	38
December ...	18,770,000	115	7,104,000	83	38
1846.					
	Liabilities, Average of Year, £20,262,416.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,539,416.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 42 per Cent.
	£		£		
January .....	18,927,000	93	6,243,000	73	33
February .....	25,184,000	124	7,390,000	87	29
March .....	25,274,000	125	8,462,000	99	34
April .....	22,644,000	112	7,371,000	86	33
May .....	21,201,000	104	7,986,000	94	38
June .....	23,146,000	114	9,906,000	117	43
July .....	20,229,000	100	9,229,000	108	46
August .....	17,894,000	88	9,619,000	113	54
September ...	17,721,000	87	10,201,000	119	58
October .....	16,480,000	81	8,186,000	96	50
November ...	16,168,000	80	8,491,000	100	53
December ...	18,281,000	90	9,389,000	110	51
1847.					
	Liabilities, Average of Year, £15,973,250.	Average Liabilities of Year = 100.	Reserve, Average of Year, £5,291,583.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 33 per Cent.
	£		£		
January .....	16,566,000	103	7,387,000	140	45
February .....	15,486,000	97	6,673,000	126	43
March .....	16,972,000	106	6,067,000	114	36
April .....	15,062,000	94	3,581,000	68	24
May .....	14,072,000	88	4,587,000	87	32
June .....	17,774,000	111	6,263,000	118	35
July .....	15,052,000	94	5,033,000	95	33
August .....	14,654,000	91	4,803,000	91	33
September ...	16,455,000	103	4,869,000	92	30
October .....	16,011,000	100	2,780,000	53	17
November ...	15,683,000	98	3,956,000	75	25
December ...	17,792,000	111	7,500,000	142	42

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1848.					
	Liabilities, Average of Year, £15,963,333.	Average Liabilities of Year = 100.	Reserve, Average of Year, £9,784,583.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 61 per Cent.
	£		£		
January .....	16,593,000	104	8,107,000	83	49
February .....	16,378,000	103	9,859,000	101	60
March .....	17,303,000	108	11,286,000	115	65
April .....	16,098,000	101	9,563,000	98	59
May .....	14,433,000	90	8,988,000	92	62
June .....	15,914,000	100	10,400,000	106	65
July .....	15,628,000	98	9,557,000	98	61
August .....	14,297,000	89	9,086,000	93	63
September ...	15,731,000	99	10,010,000	102	63
October .....	15,393,000	96	9,038,000	92	59
November .....	15,842,000	99	9,820,000	100	62
December .....	17,950,000	112	11,701,000	120	65

1849.					
	Liabilities, Average of Year, £17,211,583.	Average Liabilities of Year = 100.	Reserve, Average of Year, £10,694,250.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 62 per Cent.
	£		£		
January .....	17,066,000	99	10,807,000	101	63
February .....	16,808,000	97	10,885,000	102	65
March .....	17,830,000	103	11,346,000	106	64
April .....	16,574,000	96	9,749,000	91	59
May .....	15,893,000	92	9,495,000	89	60
June .....	17,217,000	100	10,818,000	101	63
July .....	15,890,000	92	9,546,000	89	60
August .....	15,954,000	93	9,753,000	91	61
September ...	17,809,000	103	11,013,000	103	62
October .....	17,497,000	102	10,472,000	98	60
November .....	17,846,000	104	11,559,000	108	65
December .....	20,155,000	117	12,888,000	120	64

1850.					
	Liabilities, Average of Year, £18,822,083.	Average Liabilities of Year = 100.	Reserve, Average of Year, £11,219,750.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 60 per Cent.
	£		£		
January .....	18,710,000	99	11,763,000	105	63
February .....	17,920,000	95	11,688,000	104	65
March .....	19,698,000	104	12,195,000	109	62
April .....	17,733,000	94	10,729,000	95	60
May .....	17,367,000	92	10,988,000	98	63
June .....	19,185,000	102	11,695,000	104	61
July .....	17,911,000	95	10,601,000	94	59
August .....	17,948,000	96	10,822,000	96	60
September .....	20,112,000	107	11,600,000	103	58
October .....	18,888,000	100	10,504,000	93	56
November .....	19,402,000	103	11,045,000	98	57
December .....	20,911,000	111	11,007,000	98	52

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1851					
	Liabilities, Average of Year, £17,638,583.	Average Liabilities of Year = 100.	Reserve, Average of Year, £9,103,833.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities 51 per Cent.
	£		£		
January .....	18,854,000	107	9,017,000	99	48
February .....	17,551,000	99	9,276,000	102	53
March .....	18,671,000	106	9,498,000	104	51
April .....	16,534,000	94	7,850,000	86	47
May .....	16,181,000	92	8,093,000	89	50
June .....	18,167,000	103	9,029,000	99	50
July .....	16,007,000	91	7,755,000	85	48
August .....	16,241,000	92	8,105,000	89	50
September ...	18,438,000	104	9,456,000	104	51
October .....	18,251,000	103	8,981,000	99	49
November ...	17,411,000	99	9,929,000	109	57
December ...	19,357,000	110	12,257,000	135	63

1852.					
	Liabilities, Average of Year, £20,149,000.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,764,500.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 63 per Cent.
	£		£		
January .....	18,497,000	92	11,401,000	89	61
February .....	19,112,000	95	12,324,000	97	65
March .....	20,598,000	102	13,510,000	106	66
April .....	19,238,000	95	12,135,000	95	63
May .....	19,403,000	96	12,691,000	99	65
June .....	21,060,000	104	13,938,000	109	66
July .....	20,118,000	100	12,823,000	100	64
August .....	19,716,000	98	12,953,000	101	66
September ...	21,151,000	105	13,765,000	108	65
October .....	20,357,000	101	12,443,000	97	61
November ...	20,204,000	100	12,318,000	96	61
December ...	22,334,000	111	12,873,000	101	58

1853.					
	Liabilities, Average of Year, £19,543,166.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,907,750.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 46 per Cent.
	£		£		
January .....	21,047,000	108	10,271,000	115	49
February .....	20,066,000	103	10,135,000	113	50
March .....	24,059,000	123	11,238,000	126	47
April .....	19,771,000	101	9,725,000	109	49
May .....	18,579,000	95	9,146,000	102	49
June .....	19,079,000	97	9,550,000	107	50
July .....	17,683,000	90	8,577,000	96	49
August .....	16,998,000	87	8,119,000	91	48
September ...	18,051,000	92	7,806,000	88	43
October .....	18,375,000	94	6,090,000	68	33
November ...	18,602,000	95	7,675,000	86	41
December ...	22,208,000	114	8,561,000	96	38

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1854.					
	Liabilities, Average of Year, £15,740,833.	Average Liabilities of Year = 100.	Reserve, Average of Year, £27,290,333.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 46 per Cent.
	£		£		
January .....	18,954,000	120	8,077,000	111	43
February .....	15,673,000	99	8,237,000	113	53
March .....	15,686,000	99	8,040,000	110	51
April .....	15,903,000	101	5,445,000	75	34
May .....	14,082,000	89	5,548,000	76	39
June .....	14,729,000	93	7,072,000	97	43
July .....	16,265,000	103	7,341,000	101	45
August .....	14,639,000	93	7,390,000	101	51
September ...	15,857,000	100	7,588,000	104	43
October .....	15,066,000	95	6,629,000	91	44
November ...	15,144,000	96	7,459,000	102	49
December ...	16,892,000	107	8,658,000	119	51
1855.					
	Liabilities, Average of Year, £17,698,583.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,366,583.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 47 per Cent.
	£		£		
January .....	15,120,000	85	6,774,000	81	45
February .....	15,727,000	89	7,480,000	89	48
March .....	17,052,000	96	9,109,000	109	53
April .....	18,306,000	103	8,954,000	107	49
May .....	17,192,000	97	10,512,000	125	61
June .....	20,063,000	113	12,273,000	147	61
July .....	18,708,000	105	10,193,000	123	54
August .....	18,813,000	106	9,662,000	115	51
September ...	20,023,000	113	7,904,000	95	39
October .....	17,193,000	97	5,204,000	62	30
November ...	16,253,000	92	5,650,000	67	35
December ...	17,933,000	101	6,684,000	80	37
1856.					
	Liabilities, Average of Year, £16,864,500.	Average Liabilities of Year = 100.	Reserve, Average of Year, £5,772,083.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 34 per Cent.
	£				
January .....	18,149,000	108	5,667,000	98	31
February .....	18,613,000	110	6,284,000	109	34
March .....	18,807,000	111	6,290,000	109	33
April .....	16,624,000	99	4,565,000	79	27
May .....	15,415,000	91	5,023,000	87	33
June .....	15,432,000	92	7,372,000	127	48
July .....	15,893,000	94	6,378,000	110	40
August .....	15,704,000	93	6,770,000	117	43
September ...	18,046,000	107	6,594,000	114	36
October .....	17,135,000	102	3,781,000	65	22
November ...	15,607,000	92	4,352,000	75	28
December ...	16,949,000	100	6,189,000	107	36

24 *Liabilities and Reserve of Bank of England.*

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND  
RESERVE OF BANK OF ENGLAND.

1857					
	Liabilities, Average of Year, £17,828,833.	Average Liabilities of Year = 100.	Reserve, Average of Year, £5,347,750.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 30 per Cent.
	£		£		
January .....	16,157,000	90	5,327,000	100	33
February .....	17,802,000	100	6,001,000	112	34
March .....	19,350,000	108	5,958,000	111	31
April .....	16,815,000	94	4,164,000	78	25
May .....	15,927,000	89	4,992,000	93	31
June .....	17,782,000	100	6,537,000	122	37
July .....	15,797,000	88	6,384,000	120	40
August .....	16,811,000	94	6,314,000	118	37
September ...	17,784,000	100	6,728,000	126	38
October .....	17,481,000	98	4,118,000	77	23
November ...	19,639,000	110	2,030,000	38	10
December ...	22,601,000	127	5,619,000	105	25
1858.					
	Liabilities, Average of Year, £20,847,833.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,037,416.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 58 per Cent.
	£		£		
January .....	22,615,000	108	8,719,000	72	38
February .....	21,390,000	102	11,596,000	96	54
March .....	21,308,000	102	13,004,000	108	61
April .....	20,714,000	99	12,555,000	104	60
May .....	19,536,000	94	12,147,000	101	62
June .....	20,765,000	100	12,648,000	105	61
July .....	19,940,000	96	11,086,000	92	55
August .....	19,482,000	93	11,345,000	94	58
September ...	20,892,000	100	12,920,000	107	62
October .....	20,618,000	99	12,722,000	106	62
November ...	20,255,000	97	12,247,000	102	61
December ...	22,659,000	108	13,460,000	112	60
1859.					
	Liabilities, Average of Year, £22,530,833.	Average Liabilities of Year = 100.	Reserve, Average of Year, £11,076,175.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 49 per Cent.
	£		£		
January .....	22,654,000	100	6,146,000	81	33
February .....	22,792,000	95	6,700,000	88	38
March .....	23,245,000	105	7,814,000	103	40
April .....	21,973,000	102	7,488,000	98	40
May .....	22,969,000	101	6,982,000	92	38
June .....	23,920,000	105	7,323,000	96	38
July .....	21,852,000	95	6,241,000	82	35
August .....	21,200,000	92	7,332,000	96	43
September ...	22,562,000	97	8,412,000	111	47
October .....	21,922,000	101	7,775,000	102	42
November ...	21,925,000	99	8,710,000	114	47
December ...	23,356,000	108	10,413,000	137	52

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1860.					
	Liabilities, Average of Year, £20,893,333.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,451,083.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 40 per Cent.
	£		£		
January .....	21,658,000	104	8,673,000	103	40
February .....	21,604,000	103	8,452,000	100	39
March .....	23,385,000	112	9,142,000	108	39
April .....	22,278,000	107	6,991,000	83	32
May .....	20,762,000	99	8,304,000	98	40
June .....	21,474,000	103	9,771,000	116	45
July .....	20,477,000	98	8,597,000	102	42
August .....	19,948,000	96	8,514,000	101	43
September ...	20,845,000	100	9,756,000	115	47
October .....	19,167,000	92	7,755,000	92	41
November ...	19,536,000	93	7,541,000	89	38
December ...	19,586,000	94	7,917,000	94	40
1861.					
	Liabilities, Average of Year, £18,481,383.	Average Liabilities of Year = 100.	Reserve, Average of Year, £7,611,333.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 41 per Cent.
	£		£		
January .....	18,488,000	100	6,146,000	81	33
February .....	17,614,000	95	6,700,000	88	38
March .....	19,481,000	105	7,814,000	103	40
April .....	18,784,000	102	7,488,000	98	40
May .....	18,595,000	101	6,982,000	92	38
June .....	19,352,000	105	7,323,000	96	38
July .....	17,607,000	95	6,241,000	82	35
August .....	16,978,000	92	7,332,000	96	43
September ...	17,948,000	97	8,412,000	111	47
October .....	18,655,000	101	7,775,000	102	42
November ...	18,867,000	99	8,710,000	114	47
December ...	19,907,000	108	10,413,000	137	52
1862.					
	Liabilities, Average of Year, £22,414,175.	Average Liabilities of Year = 100.	Reserve, Average of Year, £10,194,416.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 45 per Cent.
	£		£		
January .....	21,271,000	95	10,308,000	101	48
February .....	21,075,000	94	10,201,000	100	48
March .....	21,817,000	97	10,762,000	105	49
April .....	22,229,000	99	10,461,000	103	47
May .....	22,034,000	98	10,472,000	103	47
June .....	22,653,000	101	9,423,000	92	42
July .....	23,453,000	105	10,106,000	99	43
August .....	22,554,000	101	10,428,000	102	46
September ...	23,610,000	105	11,179,000	109	47
October .....	22,692,000	101	9,473,000	93	42
November ...	22,216,000	99	9,463,000	93	43
December ...	23,866,000	104	10,057,000	98	43



TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1863.					
	Liabilities, Average of Year, £21,946,666.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,536,333.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 39 per Cent.
	£		£		
January .....	22,712,000	103	8,483,000	99	37
February .....	21,065,000	96	9,311,000	109	44
March .....	22,785,000	104	9,758,000	114	43
April .....	22,070,000	101	9,175,000	108	41
May .....	21,651,000	99	8,738,000	102	40
June .....	24,071,000	109	9,088,000	106	38
July .....	23,090,000	105	8,095,000	95	35
August .....	20,021,000	91	8,406,000	98	42
September ...	21,540,000	98	9,019,000	106	42
October .....	21,384,000	97	7,316,000	86	34
November ...	20,169,000	92	6,895,000	81	34
December ...	22,802,000	104	8,152,000	96	36
1864.					
	Liabilities, Average of Year, £20,600,750.	Average Liabilities of Year = 100.	Reserve, Average of Year, £7,478,583.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 37 per Cent.
	£		£		
January .....	21,366,000	104	7,476,000	100	35
February .....	20,869,000	101	8,059,000	108	39
March .....	22,453,000	109	8,668,000	116	39
April .....	20,776,000	101	6,562,000	88	31
May .....	20,717,000	100	6,765,000	91	33
June .....	22,113,000	107	8,403,000	113	38
July .....	20,377,000	99	6,528,000	87	32
August .....	19,550,000	95	5,944,000	79	30
September ...	19,872,000	96	7,241,000	97	36
October .....	19,028,000	92	6,497,000	87	34
November ...	19,669,000	95	8,233,000	110	42
December ...	20,419,000	99	9,367,000	126	46
1865.					
	Liabilities, Average of Year, £21,200,250.	Average Liabilities of Year = 100.	Reserve, Average of Year, £8,089,750.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 38 per Cent.
	£		£		
January .....	20,808,000	98	8,315,000	103	40
February .....	20,813,000	98	9,080,000	112	44
March .....	22,844,000	108	9,885,000	122	43
April .....	21,873,000	103	8,578,000	106	39
May .....	21,918,000	103	8,607,000	107	39
June .....	23,085,000	109	9,871,000	122	39
July .....	21,567,000	102	7,693,000	95	43
August .....	20,749,000	98	6,961,000	86	36
September ...	21,007,000	99	7,335,000	91	33
October .....	19,590,000	92	5,338,000	66	35
November ...	18,747,000	88	7,355,000	91	27
December ...	21,402,000	101	8,058,000	100	38

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1866.					
	Liabilities, Average of Year, £22,603,250.	Average Liabilities of Year = 100.	Reserve, Average of Year, £6,745,000.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 30 per Cent.
	£		£		
January .....	19,420,000	86	6,381,000	95	33
February .....	17,865,000	79	7,583,000	113	43
March .....	20,098,000	89	8,420,000	125	49
April .....	19,392,000	86	6,847,000	102	35
May .....	23,266,000	103	2,979,000	44	13
June .....	23,425,000	126	4,076,000	60	14
July .....	24,199,000	107	3,636,000	54	15
August .....	22,257,000	98	4,798,000	71	21
September ...	23,277,000	103	7,765,000	115	33
October .....	23,240,000	103	7,531,000	112	32
November ...	23,343,000	103	9,421,000	140	40
December ...	26,457,000	117	11,503,000	171	43

1867.					
	Liabilities, Average of Year, £26,106,750.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,906,333.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 49 per Cent.
	£		£		
January .....	26,791,000	102	11,057,000	86	41
February .....	24,964,000	96	11,394,000	88	46
March .....	25,985,000	99	12,246,000	95	47
April .....	25,306,000	97	11,128,000	86	44
May .....	25,803,000	99	11,475,000	89	44
June .....	27,900,000	107	13,675,000	106	49
July .....	26,695,000	102	13,526,000	105	51
August .....	26,186,000	100	14,443,000	112	55
September ...	27,553,000	106	15,617,000	121	57
October .....	25,737,000	99	13,706,000	106	53
November ...	24,706,000	95	13,165,000	102	53
December ...	25,655,000	98	13,444,000	104	52

1868.					
	Liabilities, Average of Year, £25,619,250.	Average Liabilities of Year = 100.	Reserve, Average of Year, £11,903,166.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 46 per Cent.
	£		£		
January .....	27,285,000	106	13,116,000	110	43
February .....	25,217,000	98	13,057,000	110	52
March .....	26,049,000	102	12,976,000	109	50
April .....	25,635,000	100	11,493,000	96	45
May .....	26,620,000	104	11,684,000	98	44
June .....	28,026,000	109	13,683,000	115	49
July .....	26,843,000	105	12,669,000	106	47
August .....	23,844,000	93	11,495,000	96	43
September ...	24,140,000	94	11,906,000	100	49
October .....	24,523,000	96	10,707,000	90	44
November ...	24,158,000	94	10,067,000	85	42
December ...	25,091,000	98	9,985,000	84	40

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1869.					
	Liabilities, Average of Year, £23,713,500.	Average Liabilities of Year = 100.	Reserve, Average of Year, £10,320,175.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 43 per Cent.
	£		£		
January .....	25,247,000	106	9,753,000	94	39
February .....	22,883,000	96	10,139,000	98	44
March .....	24,981,000	105	9,754,000	94	39
April .....	23,112,000	97	8,328,000	81	36
May .....	23,038,000	97	8,331,000	81	36
June .....	25,277,000	106	10,993,000	107	43
July .....	24,882,000	105	11,205,000	109	45
August .....	22,514,000	95	12,043,000	117	53
September ...	22,989,000	97	12,001,000	116	52
October .....	22,723,000	96	10,061,000	98	44
November ...	22,216,000	94	10,059,000	98	45
December ...	24,750,000	104	11,175,000	108	45

1870.					
	Liabilities, Average of Year, £26,358,416.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,435,333.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 47 per Cent.
	£		£		
January .....	26,565,000	101	10,772,000	86	40
February .....	26,955,000	102	11,974,000	96	44
March .....	28,282,000	107	12,942,000	104	46
April .....	25,415,000	96	11,666,000	94	46
May .....	25,528,000	97	11,672,000	94	46
June .....	28,664,000	109	13,258,000	107	46
July .....	26,741,000	102	11,473,000	92	43
August .....	26,693,000	101	10,981,000	88	41
September ...	25,956,000	98	13,449,000	108	52
October .....	24,444,000	93	13,019,000	105	53
November ...	24,775,000	94	13,286,000	107	54
December ...	26,283,000	100	14,732,000	118	56

1871.					
	Liabilities, Average of Year, £29,022,583.	Average Liabilities of Year = 100.	Reserve, Average of Year, £14,162,916.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 49 per Cent.
	£		£		
January .....	26,468,000	91	13,242,000	94	50
February .....	26,725,000	92	13,464,000	95	50
March .....	31,872,000	110	13,764,000	97	43
April .....	29,807,000	103	13,291,000	94	45
May .....	28,199,000	97	14,691,000	104	52
June .....	30,167,000	104	17,175,000	121	57
July .....	33,138,000	114	16,876,000	119	51
August .....	28,404,000	98	15,186,000	107	53
September ...	27,714,000	95	13,485,000	95	49
October .....	27,859,000	96	9,529,000	67	34
November ...	28,789,000	99	13,802,000	97	48
December ...	29,129,000	100	15,450,000	109	53

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1872.					
	Liabilities, Average of Year, £29,268,750.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,122,416.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 41 per Cent.
	£		£		
January .....	30,031,000	103	14,482,000	119	48
February .....	30,014,000	103	14,237,000	117	47
March .....	32,688,000	111	13,656,000	113	42
April .....	31,042,000	106	10,977,000	90	35
May .....	28,956,000	99	10,302,000	85	36
June .....	29,655,000	101	13,405,000	111	45
July .....	29,465,000	101	11,845,000	98	40
August .....	28,911,000	99	12,139,000	100	42
September ...	29,084,000	99	11,411,000	94	39
October .....	26,428,000	90	8,648,000	71	33
November ...	27,243,000	93	10,754,000	88	39
December ...	27,708,000	95	13,613,000	112	49

1873.					
	Liabilities, Average of Year, £28,986,583.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,051,000.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 42 per Cent.
	£		£		
January .....	28,527,000	98	13,792,000	115	48
February .....	32,158,000	111	15,340,000	129	48
March .....	34,985,000	121	14,913,000	124	43
April .....	33,900,000	117	11,141,000	93	33
May .....	30,951,000	107	10,497,000	87	34
June .....	30,314,000	105	11,200,000	93	37
July .....	26,275,000	91	11,566,000	96	44
August .....	25,010,000	86	13,005,000	108	52
September ...	29,345,000	101	13,131,000	109	45
October .....	25,746,000	89	8,560,000	71	33
November ...	23,914,000	83	9,534,000	79	40
December ...	26,474,000	91	11,933,000	99	45

1874.					
	Liabilities, Average of Year, £25,493,500.	Average Liabilities of Year = 100.	Reserve, Average of Year, £11,035,500.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 43 per Cent.
	£		£		
January .....	26,352,000	103	12,329,000	112	47
February .....	25,870,000	101	12,355,000	112	48
March .....	27,417,000	108	12,826,000	116	47
April .....	28,167,000	110	10,627,000	96	38
May .....	26,189,000	103	10,391,000	94	40
June .....	26,423,000	104	12,276,000	111	46
July .....	25,295,000	99	10,978,000	99	43
August .....	23,355,000	92	10,672,000	97	46
September ...	24,352,000	95	11,488,000	104	47
October .....	26,176,000	103	9,790,000	89	37
November ...	22,928,000	90	8,994,000	82	39
December ...	23,398,000	92	9,700,000	88	41

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1875.					
	Liabilities, Average of Year, £26,749,985.	Average Liabilities of Year = 100.	Reserve, Average of Year, £11,596,525.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 43 per Cent.
	£		£		
January .....	24,988,000	93	11,165,000	96	44
February .....	23,757,000	89	10,142,000	87	43
March .....	26,232,000	98	10,153,000	87	38
April .....	24,541,000	92	9,202,000	79	37
May .....	23,752,000	89	9,176,000	78	39
June .....	28,101,000	105	12,071,000	103	43
July .....	31,489,000	117	14,455,000	124	46
August .....	29,472,000	110	15,696,000	134	53
September ...	28,553,000	106	14,947,000	128	52
October .....	28,688,000	107	11,015,000	95	38
November ...	24,509,000	91	10,323,000	89	42
December ...	26,263,000	98	10,491,000	90	40
1876.					
	Liabilities, Average of Year, £29,846,347.	Average Liabilities of Year = 100.	Reserve, Average of Year, £15,961,592.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 53 per Cent.
	£		£		
January .....	25,498,000	85	9,313,000	58	37
February .....	25,744,000	86	11,048,000	69	43
March .....	29,137,000	97	12,633,000	79	43
April .....	28,092,000	94	13,226,000	83	47
May .....	28,237,000	94	13,942,000	87	49
June .....	30,576,000	102	16,483,000	103	54
July .....	33,094,000	111	18,286,000	114	55
August .....	34,067,000	114	20,863,000	128	60
September ...	34,891,000	117	21,763,000	130	62
October .....	35,406,000	119	19,904,000	124	56
November ...	30,857,000	104	17,969,000	113	58
December ...	31,825,000	107	16,345,000	102	51
1877.					
	Liabilities, Average of Year, £28,771,424.	Average Liabilities of Year = 100.	Reserve, Average of Year, £12,478,680.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 43 per Cent.
	£		£		
January .....	32,020,000	111	15,563,000	124	49
February .....	30,272,000	105	14,186,000	113	47
March .....	31,987,000	108	14,096,000	113	44
April .....	30,328,000	105	12,516,000	100	41
May .....	28,841,000	100	11,515,000	92	40
June .....	30,190,000	105	13,316,000	107	44
July .....	30,123,000	104	13,672,000	110	45
August .....	27,701,000	96	12,293,000	99	44
September ...	27,464,000	96	11,824,000	94	43
October .....	26,154,000	91	9,662,000	77	37
November ...	24,394,000	85	10,462,000	84	43
December ...	25,875,000	90	12,249,000	98	47

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND RESERVE OF BANK OF ENGLAND.

1878.					
	Liabilities, Average of Year, £29,074,952.	Average Liabilities of Year = 100.	Reserve, Average of Year, £10,879,044.	Average Reserve of Year = 100.	Proportion of Reserve to Liabilities, 37 per Cent.
	£		£		
January .....	29,549,000	101	12,350,000	113	42
February .....	28,716,000	99	13,096,000	120	45
March .....	34,237,000	117	12,448,000	114	36
April .....	30,787,000	106	10,203,000	94	33
May .....	28,548,000	98	10,479,000	96	37
June .....	29,229,000	100	11,195,000	103	38
July .....	27,072,000	93	9,205,000	84	34
August .....	24,233,000	83	9,179,000	84	38
September ...	24,893,000	86	11,130,000	102	44
October .....	30,062,000	103	9,843,000	90	33
November ...	30,214,000	104	11,789,000	108	39
December ...	31,661,000	109	10,059,000	92	32

1845-61.					
	Liabilities, Average of 17 Years, £18,401,590.	Average Liabilities of 17 Years = 100.	Reserve, Average of 17 Years, £8,869,117.	Average Reserve of 17 Years = 100.	Proportion of Reserve to Liabilities, 48 per Cent.
	£		£		
January .....	19,532,000	106	8,560,000	96	44
February .....	19,556,000	106	9,144,000	103	47
March .....	19,793,000	107	9,821,000	111	50
April .....	18,328,000	99	8,281,000	93	45
May .....	17,481,000	95	8,517,000	96	49
June .....	18,987,000	103	9,797,000	110	52
July .....	17,708,000	96	8,744,000	98	49
August .....	17,210,000	93	8,938,000	101	52
September ...	18,610,000	101	9,285,000	105	50
October .....	17,941,000	98	7,804,000	89	44
November ...	17,893,000	97	8,161,000	92	45
December ...	19,865,000	108	9,576,000	108	48

1862-78.					
	Liabilities, Average of 17 Years, £25,751,596.	Average Liabilities of 17 Years = 100.	Reserve, Average of 17 Years, £11,111,574.	Average Reserve of 17 Years = 100.	Proportion of Reserve to Liabilities, 43 per Cent.
	£		£		
January .....	25,582,000	99	11,053,000	99	43
February .....	24,998,000	97	11,461,000	102	46
March .....	27,285,000	105	11,759,000	105	43
April .....	26,028,000	101	10,319,000	92	40
May .....	25,544,000	99	10,101,000	91	40
June .....	27,345,000	106	11,741,000	105	43
July .....	26,691,000	103	11,283,000	101	42
August .....	25,673,000	99	11,414,000	102	44
September ...	25,661,000	99	12,041,000	108	47
October .....	25,287,000	98	10,035,000	90	40
November ...	24,288,000	94	10,681,000	96	44
December ...	25,797,000	100	11,545,000	103	44

TABLE II. *Continued*—MONTHLY AVERAGES OF LIABILITIES AND  
RESERVE OF BANK OF ENGLAND.

1845-1878.					
	Liabilities, Average of 34 Years, £22,076,593.	Average Liabilities of 34 Years = 100.	Reserve, Average of 34 Years, £9,990,345.	Average Reserve of 34 Years = 100.	Proportion of Reserve to Liabilities, 45 per Cent.
	£		£		
January .....	22,557,000	102	9,806,000	98	43
February .....	22,277,000	100	10,297,000	103	46
March .....	23,539,000	106	10,790,000	108	46
April .....	22,178,000	100	9,300,000	93	42
May .....	21,512,000	97	9,309,000	93	43
June .....	23,166,000	105	10,769,000	107	46
July .....	22,199,000	100	10,013,000	100	45
August .....	21,941,000	99	10,176,000	101	46
September ...	22,135,000	100	10,663,000	106	48
October .....	21,614,000	98	8,919,000	89	41
November ...	21,090,000	95	9,421,000	94	44
December ...	25,831,000	117	10,560,000	105	41

## CHAPTER III.

THE BALANCES OF THE LONDON BANKERS WITH  
THE BANK OF ENGLAND.

THE subject of the bankers' balances with the Bank of England requires some further consideration. There have been several occasions, principally of late years, on which the balances of the London bankers with the Bank have been larger than the reserve of the Bank of England.

Thus :—

	£
On 11th November, 1857, the Bank of England reserve was .....	1,462,000
London bankers' balances .....	4,649,000
On 16th May, 1866, the Bank of England reserve was .....	1,203,000
London bankers' balances .....	7,930,000
On 31st October, 1877, the Bank of England reserve was .....	9,678,000
London bankers' balances .....	10,069,000

The last statement shows in a very remarkable way the manner in which the London bankers' balances have continued to expand. October, 1877, was a very severe time of pressure, and the amount of the bankers' balances then shown was by no means the largest in the return of that year, but it still largely exceeded the amount attained during the panic of 1866.



The details of the dates when the bankers' balances exceeded the reserve are as follows :—

NUMBER OF TIMES WHEN THE BANKERS' BALANCES EXCEEDED  
THE RESERVE OF THE BANK OF ENGLAND.

1847 .....	1
1856 .....	2
1857 .....	7
1858 .....	2
1865 .....	1
1866 .....	20
1871 .....	4
1872 .....	1
1873 .....	6
1874 .....	6
1875 .....	9
1877 .....	2
	<hr/>
	61
	<hr/>

Divided into four groups of eight years each, the results are as follows :—

NUMBER OF TIMES WHEN THE BANKERS' BALANCES EXCEEDED THE RESERVE  
OF THE BANK OF ENGLAND.

Years 1844-53 .....	1
„ 1854-61 .....	11
„ 1862-69 .....	21
„ 1870-77 .....	28
	<hr/>
	61
	<hr/>

These statements also show that this tendency is independent of years of panic or extraordinary pressure. Though no panic whatever occurred during the years 1870-1877, the balances of the London bankers were yet more frequently larger in the aggregate than the reserve of the Bank of England in those eight years, than in any of the similar groups of years which preceded.

These figures mark very distinctly that the growth of the balances of the London bankers increases progressively in a larger proportion than the reserve of the Bank of England.

It would be a very desirable thing if the amounts held by the bankers, both in London and the provinces, with the Bank were published every week, as it would then be clear what the reserve really consisted of. If

in the published accounts of the Bank the amount of the balances of the bankers were deducted from the ordinary deposits, and a corresponding deduction made from the reserve, as in the form of account given below, it would become obvious at once that, on the 26th December, 1877—the latest statement respecting which these details are available—the deposits of the public with the Bank of England, instead of being 20 millions, were 11 millions, that the reserve available against the ordinary, as distinguished from the banking portion of the liabilities, was  $3\frac{1}{2}$  millions instead of 12, and that the proportion of this reserve, instead of being 46 per cent., as the usual statement makes it, was only about 20 per cent.

TABLE III.—BANK OF ENGLAND. ACCOUNT FOR THE WEEK ENDING ON WEDNESDAY, THE 26TH DAY OF DECEMBER, 1877. Arranged so as to Show the Proportion of the Reserve to the Liabilities after Deducting the Balances of the London Bankers' from Both.

ISSUE DEPARTMENT.			
	£		£
Notes issued.....	38,231,530	Government debts .....	11,015,100
		Other securities .....	3,984,900
		Gold coin and bullion.....	23,231,530
	<u>38,231,530</u>		<u>38,231,530</u>
BANKING DEPARTMENT.			
	£		£
Proprietors' capital.....	14,553,000	Government securities ...	13,383,176
Reserve .....	3,073,356	Other securities .....	18,441,368
Public deposits .....	5,942,869	Notes.....	11,433,545
Other deposits .....	20,183,367	Less, per contra .....	8,695,000
Less, bankers' } balances ... }	8,695,000		2,738,545
	<u>11,488,367</u>	Gold and silver coin .....	800,540
Seven-day and other bills	806,037		
	<u>35,363,629</u>		<u>35,363,629</u>

Proportion of reserve to liabilities, less bankers' balances from both, 20 per cent.

Proportion of reserve to liabilities, shown in ordinary form, 46 per cent.

The statement selected as an illustration is merely taken as being the last published, and not for any other reason. It would have been easy to select the accounts

of other weeks, in which the proportion borne by the London bankers' balances to the deposits generally, and also the proportion of the London bankers' balances to the reserve, would have been considerably larger than in the one chosen, and consequently the proportion borne by the reserve to the remainder of the liabilities would have been far smaller; or to have taken a week's account in which the whole reserve was insufficient to meet the demands which might be made by the London bankers alone. The account of a week has been taken which is not an extreme instance in any way. If the ordinary liabilities of the Bank were distinguished from those incurred to its banking customers, attention would be more readily drawn to those occasions on which the bank reserve of the Bank of England was insufficient to meet the balances of the London bankers. But whether the accounts of the Bank of England are put into this form or not, one thing is clear—that the balances kept by other bankers with it cannot really form part of its own reserve and of the other banks as well, unless the amounts thus derived are held in hand ready to meet any emergency. These balances are the ultimate reserve of all the banks in the kingdom. There is no other country in the world, of which the banking system is known, in which the reserves of the banks are loaned out in the manner in which they are employed in this country. This has been the case here ever since modern banking has assumed its present form. The practice has, therefore, the plea of usage in its favour, and the plea of usage is an extremely strong one; but it is not one which should be followed implicitly when there are good reasons for a change. It might be undesirable to say that these balances should never be loaned out; but it is clear that they form that portion of the resources of the Bank which should be employed with the utmost caution.

The balances of the London bankers with the Bank of England are included among its other liabilities. In another sense also these balances, which, as previously mentioned, must be regarded as being of the nature of

till money, as far as transactions between the banks who own it are concerned, form a portion of the general banking reserve of the country. They are the only reserve of ready money kept by the bankers of the United Kingdom beyond the amount of cash in their tills. It is not meant, of course, by this to state that they are the only resources which the bankers of the country would have to fall back on in any time of pressure, for the amounts held at "call," and readily available in other forms, are very large—far larger than any of the figures now before us for consideration. But, as far as actual "cash" is concerned, these balances are the only source from which an immediate supply can be obtained for any immediate need. And to include the amounts which these balances represent among the reserves of the Bank of England, and also among the banking reserves of the country at large, is really to reckon them twice over. An estimate has, therefore, been made of the amount which the liabilities of the Bank of England would be if the balances of the London bankers were deducted from them, and also of the amount at which the reserve of the Bank would stand if these balances were not included in it; that is to say, of the position which the Bank of England would maintain if the London bankers held their own balances in Bank of England notes, or in gold in their own safes.

It has not been possible, in the space to which this statement is of necessity confined, to exhibit what the effect of making up the accounts of the Bank of England in this manner would be on every weekly return of the Bank; but the general effect is shown in col. 16 of Table I. This column contains the proportion which the annual average reserve of the Bank of England would bear to the liabilities if the balances of the London bankers were deducted from those liabilities, and the same amount deducted also from the reserve. The gradual and progressive diminution in the proportion of reserve kept to the liabilities in general has been already noticed; but from this column we may see how much greater and more marked, especially in recent years.

that diminution would have been, had the accounts of the Bank been made up in such a manner as to distinguish the ordinary from the special banking liabilities. The average reserve of the Bank of England would, if the bankers' balances had not been included in it, have been in 1875 but 6 per cent. of the liabilities, and in 1866 but 3 per cent. We may thus see clearly how largely the reserve of the Bank of England is composed of money which is really also the reserve of other banks, and retained against other liabilities, than those which appear in this account—liabilities which, of banks in the United Kingdom alone, are many times larger than those of the Bank of England, which were estimated in 1873 as being more than 500 millions, and are now probably about 520 millions. From a banking position, there is no doubt economy in making the Bank of England keep the reserve of the bankers, but it is equally certain that, from a general point of view, this tends to place any pressure always at one point—a point on which many and varied demands, for domestic and foreign needs, the requirements for wages in England, of farmers in Scotland, of dealers in Ireland, the requirements of great nations forming and increasing their gold circulations, demands for gold for export as well as for the internal circulation of the country, all concentrate. Great unsteadiness in the value of money is the result. Several useful suggestions have from time to time been made on this subject, and by those whose opinions deserve careful consideration. But the *vis inertiae* which in this case would have to be overcome is a remarkably powerful force. It can only be hoped that those who feel the importance of the subject will keep it steadily before the public, till some arrangement is agreed to more suited to the necessities of the case than the present most inadequate method. It will probably require the experience of another panic, with all its miseries and all its losses, the extent of which none except those who have experienced the real brunt of such a lesson can appreciate, before any better arrangement is arrived at.

Still it is best to place on record some suggestions as to what might be done. If our banks were to keep their own reserves, and publish their accounts weekly or monthly, the reserves held would undoubtedly be much larger than they are now, and business would be of a far more solid character, and more even in its tenor. Such an arrangement is hardly likely, but if the amount of the bankers' balances with the Bank were published weekly this might have a similar influence. It may be said that publicity on these points would be dangerous, and would lead to greater dangers than those to which we are already exposed in any time of pressure. There seem, however, no solid reasons for sharing in this apprehension. There is a great risk at such times to our highly complicated banking system from alarm among the ill-informed and ignorant. Their alarms might be soothed by a knowledge of the large resources held by the banks; and to those who have the conduct of the business such information might be of signal service. A knowledge of the position of the shoals and breakers to be avoided in his course, valuable at all times to the pilot, is essential among the additional perils of the storm.

It is much to be regretted that the information respecting the amount of the Bankers' Balances, which used to be periodically published, is now no longer given.

## CHAPTER IV.

THE BALANCES OF THE LONDON BANKERS WITH  
THE BANK OF ENGLAND. HOW FAR THEY  
FORM AN EFFICIENT RESERVE.

CONSIDERABLE information of a very interesting character is thrown on the manner in which the balances of the London bankers with the Bank are regarded by the Bank directors, in some letters written by Mr. H. H. Gibbs, of the Bank of England, and published in an appendix to a recent work of Professor Bonamy Price.\* These letters, in the places where they appear, form part of a very animated and interesting correspondence between Mr. Gibbs and Professor B. Price, on the Bank rate, the influx and efflux of gold, the "regulation of the currency," and other kindred subjects. It is not desirable to enter into the consideration of these questions at this time, but to examine mainly two points which are discussed in these letters, namely, the manner in which the Bank of England views the bankers' balances kept with it, and the proportion of these sums which they consider they may make use of in the natural way of business. The opinions of any director of the Bank, and especially of an ex-governor of such experience and standing as Mr. Gibbs, are very valuable, and no apology

\* Chapters on Practical Political Economy. By Bonamy Price, Professor of Political Economy in the University of Oxford. London: C. Kegan Paul and Co.

is needed for quoting from a correspondence which is open to the whole world to read. The correspondence at the point alluded to turns first on the question whether the custody of such large sums as the bankers keep on their accounts at the Bank of England may not cause some difficulty or even danger to the Bank. Mr. Gibbs in referring to this, and to the fact that the bankers' account is really an extremely easy one to arrange for, commences by remarking that "next to the Government account, the account of the collective bankers is the most certain and the most intelligible.

. . . We know of the bankers, better than of any account in our books, what is the minimum balance wherewith they can live. They must have  $x$  on their account (a quantity unknown to all but us), and  $x - y$ , therefore—never appears. But if  $x + y$  is seen, then we know that  $y$  must remain untouched and uninvested; must, in fact, form an addition to our *reserve*;  $x$  is ours for profit *if we like to use it*, but  $y$  is *ours* only for safe custody. Where is the danger? On the other hand, the possession of that account is of the greatest importance to us, as affording the most perfect and accurate measure of how far the public can at all act independently of us." The italics are in the book quoted from.

Mr. Gibbs continues in a later letter to explain that up to a certain point ( $x$ ) the normal balance of the bankers was perfectly intelligible to the Bank; "their abnormal balance, ( $y$ ) is an element of doubt." Now these remarks of Mr. Gibbs appear to confirm the advisability of the step which has been recommended, namely, that the bankers should decide that everything which they keep in hand beyond their working balances should not be placed to the credit of their clearing accounts with the Bank, but should be retained weekly under a separate heading, and not appear in the statements of the Bank. Such a separation would mark out at once what was really "reserve," and what was only nominally "reserve." The bankers' balances up to the point which Mr. Gibbs alludes to, and which may be approximately estimated



from the outside, are really not reserves to them at all; they are merely "till money" on a scale commensurate with their operations, relatively, that is, to the demands which may be made on them at any moment in settling the clearing balances. This would be seen immediately if business in the city were conducted as it was pretty much up to the date when the clearing demands were still settled by the payment of the actual notes, not by means of a cheque drawn on the Bank of England. No one could call the sums held in bank notes in the safe, or the drawer near the counter, for that purpose, a "reserve." The notes were merely "till money," and "till money" the amounts which represent them still remain, though for their own convenience the banks have advanced a step beyond their primitive practice, and have agreed to divest themselves of the actual custody of the notes, and to keep the money itself in Threadneedle Street. It is impossible to call the sums thus held by the Bank on behalf of the bankers, which represent cash merely held to meet immediate claims, a reserve. Nor is anything beyond these sums, the clearing balances as they may be described, of much use to the Bank. The bankers have frequently large sums on their accounts beyond what they require for settling the daily clearing demands. These sums, and they are often very large, are a real reserve to them. But in consequence of uncertainty as to the length of time it may remain with the Bank, the directors do not feel justified in employing the proportion of the sum which exceeds the "minimum balance" in the same manner as they do the proportion which they know must remain fixed. The amount, Mr. Gibbs truly says—and with a most proper feeling of the line of action the Bank should always take—"is ours only for safe custody." Now if there is an axiom to be observed in banking, it is that things should always be regarded as they really are. To have a balance in your hands which you cannot use is a hindrance to business, and not a help. The bankers' balances in 1876 fluctuated nearly ten millions between their lowest and their highest point, and as the lowest

may be taken as approximating to the necessary amount which has always to be maintained, it is clear that a very serious responsibility, without any corresponding advantage, must have been imposed on the Bank. To have placed these sums under a separate heading would, by Mr. Gibbs' own showing, have been no detriment to the Bank, while the doing so would have tended to the increase of that comparatively small amount of "unused money," the smallness of which is so constant and so real a danger to business in this country.

After all, the point perhaps of most importance in the recent decision of the Bank directors, which is dealt with in the next chapter, is how far their new intention of governing their dealings in the matter of discounting by the strict rules of supply and demand can be reconciled with their old practice of protecting the reserve when needful, irrespective of the rate of interest ruling in the market. The two things seem hardly capable of being reconciled with each other. The market rate of interest may be very low, and yet a demand for bullion for export may set in which may require that the rate should be raised. In circumstances like these—and they may occur any day—which influence is the directors to follow? It cannot be doubted that the Bank will be faithful to its old traditions and protect the reserve. But considering the vast sums continually floating in the outside market, and the sudden and large demand which may arise at any time out of exchange operations, the Bank may in all fairness call on those who have so large a share in regulating the outside market, to co-operate with it in providing a proper reserve to meet the demands which these operations are at times certain to entail. One thing is clear, that the fixing the rate of discount, and the custody of the reserve which is influenced by that rate, should be in the same hands; and if the rate fixed by the other banks influences the market more than it used to do, as appears to be the case, then the responsibility of providing an adequate reserve should be shared between them and the Bank of England.

## CHAPTER V.

THE PUBLISHED RATE OF DISCOUNT OF THE  
BANK OF ENGLAND.

THE directors of the Bank have recently (June, 1878) made a change in their mode of business with respect to discounts, by announcing that they will no longer feel bound to adhere to the rule of adhering to a fixed minimum rate as closely as they had done, which may have a considerable effect both on their own transactions and on the money market at large.

To investigate the reason for this change it is needful to go back some years and to trace the practice of the Bank with regard to discounts from the year 1844. The most authentic records of facts of this description are to be found in the reports and evidence given before Parliamentary Committees, as the opinions of those who appeared before those Committees are preserved there in their very words.

The Report of the Committee of the House of Lords on Commercial Distress in 1848, thus contains a historical statement of great value on this question. From it may be learned that for more than a century, down to the year 1839, the Bank rate never exceeded 5, nor fell below 4 per cent. During the pressure of 1839 the rate was raised for some months to 6 per cent., but it was re-

duced to 5 per cent. in January, 1840, and remained at 4 or 5 per cent. as before, till after the Bank Act was passed. At that date the market value of money was, and had been for some time previous, considerably below the Bank rate, so much so, in fact, that the Bank was entirely "out of the market." According to the evidence of Mr. H. J. Prescott, the deputy-governor of the Bank at the time, the Bank did not then hold "above two or three hundred thousand pounds of discounts in London, the market rate being at that time not above  $1\frac{3}{4}$  to 2 per cent." The actual sum is mentioned as being 113,000*l*, when the Bank rate was reduced to  $2\frac{1}{2}$  per cent. in August, 1844.

This was the date at which the "new system of discounting," as Mr. Prescott termed it in his evidence, was adopted by the Bank. The novelty of the system consisted in the fact that the Bank commenced from the autumn of 1844 to adapt its own rate to the market rate, and with such effect that the governor of the Bank, Mr. James Morris, in giving evidence on the same occasion as Mr. Prescott, considered that by 1848 the Bank held half the discounts then in the market. "I consider," were Mr. Morris's words, "that in London the discounts by other parties, the great discount brokers and bankers, must be equal to the amount which the Bank holds under discount." And, in answer to another question, Mr. Morris added, "I think that the discount brokers and other parties afford altogether to the public an amount of discount equal to that afforded by the Bank, except in times of extreme pressure."

These observations made by the governor and the deputy-governor of the Bank in 1848 show what the position of the Bank of England was towards the outside market thirty years ago. They are supplemented and supported by the remarks made by Mr. Samuel Jones Lloyd (afterwards Lord Overstone) at the same date, when examined before the "Committee on Commercial Distress" of the House of Commons. Mr. Lloyd's evidence was to the effect that the Bank had at

that time become more of a competitor in discount business than formerly, owing to the fact that it made its own terms conform to the fluctuations in the market rate more closely than it used to do. "The Bank rate," Mr. Lloyd said, "formerly was 4 or 5 per cent. ; if the market rate of interest was below 4 per cent., the Bank ceased to discount till it got up again to that point. But in point of fact, latterly the discount department has become a very active department of the Bank." Mr. Lloyd's evidence thus confirms the statement which Mr. Morris had made.

This describes the position of matters in 1848. No great alteration had occurred in it nine or ten years later, when a Select Committee of the House of Commons collected further evidence on the working of the Bank Acts. Mr. D. B. Chapman was examined before that Committee ; by his evidence it is shown that the rate charged by the Bank of England in 1857 was not as it is at present, almost invariably above the outside rate, but that it worked more nearly in unison with it, being sometimes a little above and sometimes a little below the market rate. When the Bank rate was very low the market rate was a little lower, and when the Bank rate was very high the market rate was a little higher. The evidence of the late Sir D. Salomons before the Committee of 1858 supported Mr. Chapman's remarks, and shows how closely the Bank rate conformed to the market rate at that period. In 1857, however, the first signs of divergence between the Bank rate and the market rate appear to have occurred. Sir D. Salomons mentioned that a few months previously the London and Westminster Bank had deviated from the principle of working in accordance with the Bank. His words were, "We at that time altered our system. We do not now follow so closely the Bank rate ; we have, as far as we can, broken from it, adopting what may be called an expedient rate, not following the Bank rate so closely as hitherto we have done."

This statement of Sir David Salomons shows the direction in which matters were tending in his time.

Gradually it became a question whether the publication of a fixed rate by the Bank of England had not become as much an anachronism, as a permanently fixed rate was in the year 1844. When a fixed rate was published by the Bank, people could tell at once whether they could get their business done cheaper elsewhere; and in this period of sharp competition, such knowledge is enough of itself to deter them from coming to a Bank, the rate of which they know already. The Bank lost thus that power of delicate adjustment of its position to the precise needs of the moment, which is essential to the maintenance of business. It could not, as it were, feel the pulse of its customers as closely as it could were its rate not advertised; it could not follow as well the distinctions made between one class of paper and another, as it could did a hard and fast rule not exist.

Meanwhile, the competition for bills in the discount market is beyond question most sharp at the present day. Within a period of about twenty years, several joint stock companies have been formed for the purpose of carrying on this class of business, and the number of private firms engaged in it appears also to augment. Various circumstances—the increasing supply of money, the power of dealing by means of telegraphic transfers, and other circumstances—have all tended to limit the supply of bills, which is apparently smaller now in proportion to the supply of money than it was ten or fifteen years since, whilst the competition for those in the market is closer than ever.

## CHAPTER VI.

THE PUBLISHED RATE OF DISCOUNT OF THE  
BANK OF ENGLAND AND THE RESERVE.

As mentioned in the last chapter, the Bank of England announced in June, 1878, that it would, when occasion required, discount for those of its customers who transacted business exclusively with it, at a rate lower than that advertised as the official rate. One result of this will be for the future that the Bank rate will be less a real guide to the value of money than it has been, since, unless more exact intimation is given, it will be impossible to say how far the published rate is being adhered to. Events have been gradually drifting in this direction for some time past. The outer market, which is compelled to regulate its actions by the strict law of supply and demand, has, on more occasions than one, recognised this fact. Thus, in November, 1877, the metropolitan joint stock banks formally acknowledged that they could not remain bound by the old rule of allowing interest on deposits at "one below Bank rate," and undertook for the time an independent course of action.

But such a proof as the one just mentioned of the inability of the outside market to accept the Bank rate as an index to the real value of money, important as it

was by way of marking the gradual breaking up of the traditional rule which had governed the English money market generally for years, is of far smaller importance than an official recognition by the Bank directors that the Bank itself can no longer be bound by its own rate. This, or nothing at all, is the outcome of the recent alteration in the practice of the Bank, and since it cannot be supposed that the Bank has announced the alteration, and had to meet the objections which were certain to be made to it, without intending to abide by its decision, and to act upon it, the conclusion appears to be that the Bank rate by itself is distinctly less a guide to the value of money than it used to be.

The system which has thus practically come to an end commenced in the year 1844. Up to that date the Bank rate had been almost always a fixed rate, which for more than a century was never raised above 5 per cent., or allowed to drop below 4. In 1839, a 6 per cent. rate was charged for some little time, but with that exception the old state of matters may be regarded as lasting till 1844, when the establishment of the principle of a rate to fluctuate according to the wants of the market was as great an innovation as the recent decision of the Bank is now. Ancient prestige, actual pre-eminence of capital, the fact that they are the bankers of the Government and the issuers of the only description of notes which are legal tender throughout England and Wales—all these circumstances enabled the Bank to take a position which gave its announcement as to a rate of interest a great if not a preponderating weight. The Bank of England told all the monetary world what it would charge for money, and all the monetary world in degree followed it. Sometimes it has happened that the directors have not been right in their decisions, and have lowered the rate when they should have advanced it, or advanced it or lowered it when they ought to have remained where they were. Sometimes they have worried the market by needless alterations. Thus, to go back only a short period, there were in the year 1873 no fewer than twenty-four changes



in the Bank rate, that is to say, twenty-four changes in twelve months, and it is difficult to imagine what events can possibly have occurred to justify an alteration in the price of money once a fortnight for a whole year. Again, what may be called an experimental rate has occurred, as in 1871, when  $2\frac{1}{4}$  per cent. was charged for four weeks. Putting, however, these occasions aside, the decision of the directors of the Bank as to the value of money has generally carried great weight with it. In a market so delicately balanced as ours, in which the causes of change are so numerous and often so unexpected, even the best informed must occasionally err. But the directors, as a body, are men of high standing and of much experience, acting with a strong sense of the responsibility of their position, and with considerable opportunities of observing what the demand for money is likely to be. The fixing the rate is indeed one of the portions of the work of carrying on the business of the Bank which such a body of men as the Bank directors are likely to do best. A committee of men with great and varied commercial experiences, fluctuating but slightly from year to year, with a head appointed for two years—which is, broadly speaking, the constitution of the Bank court—is very well constituted to judge of the value of money from day to day. It is not so well constituted to meet the greater difficulties which banking has now-a-days to contend with, and which appear to require that a permanent governor should be appointed to maintain a more complete control over the business of the Bank than can be done by any body of directors, however able and well-selected. But this is not the point immediately under consideration. If the Bank carries out the decision it is understood to have arrived at, and admits that it cannot fix a definite rate for advances, it will hardly be possible to establish any new representative body in London whose resolutions as to the rate to be charged on bills will carry exactly the same weight as the decisions of an independent body, such as the directors of the Bank are.

The inconvenience, however, of there being no recognised standard for the value of money would be very great. It is far safest for all bankers, and for those who do business with them, that there should be such a standard. Since the Bank has now let it be known that it does not mean to be guided by its own rate at all times, it becomes needful to consider what standard can be established as a substitute for that guidance which will no longer exist exactly in the same form for the future, and who are to take the place of the Bank directors in giving a public notice of the rate. The bankers and bill brokers of the metropolis seem the fittest persons to judge of the value of money, and the decision of a committee appointed by them, and meeting at the Clearing House, to be the best substitute that can be found for the decision of the Bank directors. It should be composed of representatives of both private and joint stock banks. Both classes of banks are engaged in carrying on the same description of business, both appeal to the same public for support, and it is in the highest degree desirable that there should be no division of interest between them. This committee might meet once a week, or when occasion required. But as such a representative body might find it somewhat difficult to agree on a rate to be charged for discounts, and since the conclusions to which they came might not be so readily accepted as authoritative as those of the Bank directors, while at the same time some recognised standard of action will be strongly required, the best course for the Clearing House Committee would be to agree not on the rate to be charged on bills, but on the rate to be allowed on deposits.

Two advantages, in particular, would follow if this plan were completely carried out.

1. Such an arrangement would tend to check any undesirable competition for deposits, and would tend to a uniformity of action between all the bankers of the country generally, and of the metropolis in particular. Both private and joint stock banks would be represented on the committee proposed, and the representa-

tives of both classes of banks would concur in the rate to be recommended. Hitherto, though the practice of allowing interest on deposits is believed to be very general among the private banks, no private bank in London has ever made a public statement of the rate to be allowed. There is much to be said on both sides of the question as to whether the allowing interest on deposits, and the consequent enormous accumulation of money in the hands of banks, is a desirable thing or not; but yet the allowing interest on deposits is become so much the rule that the question is now not whether the practice is or is not a desirable one, but how it can best be regulated for the general advantage. This leads to the second point.

2. Such an arrangement would tend to check an unduly high rate of interest being allowed on deposits. The rate would be known as that which a representative and prudent body of bankers thought it safe to adopt. Any bank deviating from the rule would be bound, as it were, to show cause why it did not follow the example set by such a body of men. The Banking Committee would hardly be likely to recommend an unduly high rate. Such a rate is dangerous for two reasons: the one, because an unduly high rate of interest has a tendency to cause those who allow it to seek unsafe but highly-paying securities; the other, because it has a tendency to cause reserves to be pared down to a minimum. While speaking on this subject, it is as well to mention that at least one bank is understood to have made at no very distant period no profit whatever on the sums it held on deposit for a considerable time. No doubt any bank so circumstanced held other sums belonging to its customers on which no interest was allowed, and from which and its other resources it derived the means of meeting its expenses and paying its dividend. But to have the custody of vast sums with all the attendant risks, without any resulting profit to set against these, cannot be a desirable or a safe thing.

In part the plan proposed here has been carried out.

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A committee, composed of representatives of the metropolitan joint stock banks, meets from time to time, and fixes the rate to be allowed on deposits. It is desirable that this arrangement should be carried further, and that a uniform rate should be arranged at these meetings for all banks.

To conclude, fixing a rate can hardly be separated from the custody of the reserve. The metropolitan joint stock banks might have elected, now that the Bank rate stands in so altered a position, to work without a recognised rate at all. But the inconvenience of such a course would have been so great that they have been compelled to devise the method mentioned above of establishing a recognised standard, which in time may, it is to be hoped, be carried further till it includes all the banks of the country. A further advantage of the method here sketched out would be that it would facilitate the formation of a suitable reserve, which is an adjunct inseparable from the position of the body which has to bear the responsibility of putting forward that rate which is the recognised standard for the rest of the community.

## CHAPTER VII.

SOME OF THE CAUSES WHICH INFLUENCE THE  
RATE OF INTEREST CHARGED BY THE BANK  
OF ENGLAND.

A SPECIAL set of tables has been prepared to illustrate the relation between the reserve of the Bank of England and the current rate of interest. These tables, No. II. and No. VI. of the series, give the average minimum rate of discount for each month in the years 1845-1878, and the corresponding averages of the liabilities and the reserve. The average yearly rate also requires some attention. It is given in col. 38 of Table I.

The average rate of interest charged by the Bank has, after having increased, diminished again during recent years. If we divide the period now under consideration into four groups, between the years 1846-1853, 1854-1861, 1862-1869, 1870-1877, we shall find that the averages of the four groups are as follows:—

	£	s.	d.
1846-1853 .....	3	6	3
1854-1861 .....	4	15	5
1862-1869 .....	4	4	8
1870-1877 .....	3	8	5

It is also curious to observe that there is a periodic

fluctuation from one season of the year to another. The details are as follows :—

AVERAGE, MONTH BY MONTH, OF THE RATE OF INTEREST CHARGED BY THE BANK OF ENGLAND FOR THE YEARS 1846-53, 1854-1861, 1862-1869, 1870-1877.

Average Rate for the Eight Years, 1846-1853, £3 6s. 3d.			Average Rate for the Eight Years =100.	Average Rate for the Eight Years, 1854-1861, £4 15s. 5d.			Average Rate for the Eight Years =100.
	£	s. d.			£	s. d.	
January .....	3	3 11	96	January .....	5	2 8	106
February .....	3	3 9	96	February .....	4	18 6	103
March .....	3	4 9	96	March .....	5	0 9	105
April .....	3	4 7	97	April .....	4	16 4	101
May .....	3	5 0	98	May .....	5	1 11	106
June .....	3	5 3	98	June .....	4	11 8	96
July .....	3	5 0	98	July .....	4	7 10	92
August .....	3	6 3	100	August .....	4	1 2	87
September .....	3	6 7	100	September .....	4	2 5	85
October .....	3	11 3	107	October .....	4	13 11	99
November .....	3	12 4	109	November .....	5	4 11	110
December .....	3	7 7	102	December .....	5	3 5	108

Average Rate for the Eight Years, 1862-1869, £4 8s. 8d.			Average Rate for the Eight Years =100.	Average Rate for the Eight Years, 1870-1877, £3 8s. 5d.			Average Rate for the Eight Years =100.
	£	s. d.			£	s. d.	
January .....	4	10 2	106	January .....	3	11 2	104
February .....	4	4 5	99	February .....	3	1 1	89
March .....	3	19 3	93	March .....	3	4 1	94
April .....	3	19 3	93	April .....	3	2 9	91
May .....	4	13 9	111	May .....	3	9 11	103
June .....	4	7 10	104	June .....	3	5 10	96
July .....	4	4 5	99	July .....	2	18 10	86
August .....	4	4 6	99	August .....	3	0 1	88
September .....	3	15 3	89	September .....	2	15 8	81
October .....	4	1 11	96	October .....	4	2 8	121
November .....	4	6 7	103	November .....	4	10 11	133
December .....	4	8 7	104	December .....	3	18 1	114

In all the four periods into which this estimate is thus divided, the latter half of the year is the time of the highest charges. This is what we might naturally expect. The autumn and early winter months are the times of greatest business activity. The demands which the home harvest brings are great; the demands which foreign supplies of all kinds entail are more pressing still. The large amounts of produce then coming forward affect the money market; and a deficient har-

vest (should there be a short supply) usually manifests itself about the third week in October. The shipments of corn also from America generally commence early in September, and intensify up to the middle of November. These causes, and others of a kindred nature which there is no need to specify, account for the autumnal demand. They do not, however, exist in the spring. In the month of May, a corresponding, though slighter, increase of pressure may be observed to that taking place in October, November, and December. The opening of those sources of supply which have been locked up by the severity of the winter probably accounts for a considerable part of the increased demand for money indicated by a rise in its value. Some effect also must be assigned to the periodic increase in the Scotch note circulation in the months of May and November. Any increase in that circulation beyond the limits fixed by the legislation of 1844 and 1845 causes an immediate demand on the reserve of the Bank of England for gold. The increase in the Scotch circulation beyond the limit of 1845 did not become very distinctly marked till 1856. It has become very much more considerable of late. It will be observed that the rate in May was for the years 1844-53 but little above that of every other month in the first half of the year. For the years 1870-78 the rate in May was usually higher than in any other month of the first half of the year, except January. The particulars of the Scotch circulation in May, November, and December, for the years 1875-78 are as follows:—

**AUTHORISED LIMIT OF SCOTCH BANK NOTE CIRCULATION, £2,749,271.**

**Average of 1875, £6,050,909.**

1875.	Actual Circulation.
	£
15th May .....	6,096,052
2nd October.....	6,098,987
30th „ .....	6,238,417
27th November.....	6,883,326
25th December.....	6,277,658

**Average of 1876, £6,098,543.**

1876.	£
13th May .....	6,040,105
28th October.....	6,174,510
25th November.....	7,015,743
23rd December.....	6,614,751

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Average of 1877, £6,115,859.

1877.	£
12th May .....	6,051,550
27th October.....	6,073,025
24th November.....	6,755,719
22nd December.....	6,204,334

Average of 1878, £5,840,533.

1878.	£
11th May .....	5,788,435
26th October.....	5,788,136
23rd November.....	6,404,359
21st December.....	6,200,097

It may be desirable to mention here the causes which lead to these periodic, though temporary, requirements for notes in Scotland.

“The main causes of the increased note issues in May and November are undoubtedly these :—

“1st. The payments of rents and interests on mortgages, which, in Scotland, are almost uniformly made at the half-yearly terms of Whitsuntide (15th May), and Martinmas (11th November).

“2nd. The settlement of all important transactions in heritable property, which are also fixed for the same terms.

“3rd. The payment of household servants’ wages, and in many cases salaries at the same period.

“These payments are to a large extent made through the medium of bank notes, and thus they get into hands where they remain for a time, many of the parties who receive the notes having no bank account.

“It is further to be noted :—

“1st. That on the 4th of the month an unusually large amount of bills falls due, and if the 4th happens on a Saturday (the day when the returns are made up) we generally look for a heavier return on that account.



- "2nd. The November returns are usually heavier than those in May, because of the requirements of the harvest, travellers, &c.
- "3rd. In the country districts the term-day is in many places regulated by the old style, and thus the payment of farm rents run on into June and December.
- "4th. The great increase this year is, no doubt, chiefly owing to the higher scale of wages, particularly in the mining districts, among the most improvident class of working people."

This statement is quoted from a description of the circumstances written in 1872 by a well-known Scotch banker.

It becomes desirable to recapitulate at this point the monthly fluctuations in the rate of discount charged by the Bank of England, and to compare them with the corresponding fluctuations in France and Germany. The rates of the Banks of England, France, and Germany have therefore been tabulated in a similar manner for the years 1846 to 1877, and divided into periods of eight years and of sixteen years. While these tables show a distinct pressure on the Bank of England in May, and in some degree in November, the other Banks do not appear to experience the same influence. The inference seems to be that the Scotch demand in May and November is of sufficient importance to affect the rate of the Bank of England. If we refer to Table II., at pages 31-32, which contains a summary of the monthly averages of the liabilities and reserve of the Bank of England for the years 1845-78, we shall find that the liabilities of the Bank have been on an average at the lowest point in the months of May and November; that the reserve is then comparatively weak, and the proportion of the reserve to the liabilities low likewise. It is probable that there is some connection between the Scotch demand and these circumstances. This is supported by a reference to the returns of the Clearing

House when tabulated, so as to show the amount of business passing in each month of the year. The particulars from 1868 to 1878 are given in Table V., at the end of this chapter, at pages 64, 65. Those figures certainly do not show any exceptional demand in the months of May and November, and as this is not traceable in the ordinary course of business of this country, or in the rate charged by the banks of the two other countries, the inference is that the fluctuations shown to exist at the Bank of England at those periods are influenced in an appreciable degree by the Scotch demand.

This was noticed as far back as 1856 by Mr. T. M. Weguelin, who was at that time governor of the Bank. Mr. Weguelin observed in a letter to the Chancellor of the Exchequer (Sir G. C. Lewis) on the effect of this demand :—

“Now with regard to the oscillation of the internal circulation of the country, I may notice that there is, periodically, a demand for currency from the Scotch and Irish banks, which, whilst it produces a most sensible effect upon the Bank of England reserve, is uncontrollable by any action of the Bank. At certain periods of the year, especially of the harvest, the demand for currency commonly greatly exceeds the authorised issue; and as the excess must be issued on gold deposited in certain specified places, that gold is withdrawn from the Bank reserve, to be again restored to it when the reflux of the currency of the Scotch and Irish banks takes place, which is usually in the months of December to March. The Scotch banks very generally exceed their authorised aggregate issue; but with the Irish banks, although the aggregate issue is not usually exceeded, yet it often happens that some are in excess, whilst others are under the authorised amount. But as each bank has to provide for its own excess, the demand on the London bullion reserve is as great as if the whole Irish circulation had gone beyond its limit.”

The fluctuations in the circulation of notes in Ireland have been rarely so important as to produce a very marked effect in the way of requiring extra sums of gold to cover them since 1857; but, on the other hand, the note circulation in Scotland, and the periodical fluctuations in the same, have undergone a great increase since that date.

It would certainly appear to be desirable to mitigate the influence which these demands of a strictly domestic and home character exert. A better arrangement would

provide what the existing law does not provide—a real security for the Scotch issues, without allowing these periodic and strictly temporary demands to press so sharply on the central reserve. This point should be attended to, and at the same time security should also be required for the English country note issues. Opinions are sometimes expressed that it would be a desirable thing to take away the rights of issuing notes possessed by some country bankers, and to substitute instead the notes of the Bank of England. It appears, however, that the only result of such a change, under existing circumstances, would be to concentrate the pressure in any time of difficulty, even more than at present, on the reserve of the Bank of England, to increase the fluctuations in the rate of interest, and to cause higher rates to prevail. And there is no doubt that the existing note issues of the country banks, properly secured, and with adequate and special reserves held against them, might be made of greater service than they now are in carrying on the business of the country.

*Rates of Banks of England, France, and Germany.*    61

**TABLE IV.—MONTHLY AVERAGES OF MINIMUM RATE OF DISCOUNT OF BANKS OF ENGLAND, FRANCE, AND GERMANY FOR THE EIGHT YEARS, 1846-53, 1854-61, 1862-69, 1870-77, AND FOR THE SIXTEEN YEARS, 1846-61, AND 1862-77.**

<b>BANK OF ENGLAND.</b>				
<i>1846-53:</i>			<i>1854-61.</i>	
Average Rate of 8 Years, £3 6s. 3d.		Rate of 8 Years =100.	Average Rate of 8 Years, £4 15s. 5d.	Rate of 8 Years =100.
January .....	£ s. d. 3 3 11	96	January .....	£ s. d. 5 2 8    106
February .....	3 3 9	96	February .....	4 18 6    103
March .....	3 3 9	96	March .....	5 0 9    105
April .....	3 4 7	97	April .....	4 16 4    101
May .....	3 5 0	98	May .....	5 1 11    106
June .....	3 5 3	98	June .....	4 11 8    96
July .....	3 5 0	98	July .....	4 7 10    92
August .....	3 6 3	100	August .....	4 2 5    87
September .....	3 6 7	100	September .....	4 1 2    85
October .....	3 11 3	107	October .....	4 13 11    99
November .....	3 12 4	109	November .....	5 4 11    110
December .....	3 7 7	102	December .....	5 3 5    108
<i>1862-69.</i>			<i>1870-77.</i>	
Average Rate of 8 Years, £4 4s. 8d.		Rate of 8 Years =100.	Average Rate of 8 Years, £3 8s. 5d.	Rate of 8 Years =100.
January .....	£ s. d. 4 10 2	106	January .....	£ s. d. 3 11 2    104
February .....	4 4 5	99	February .....	3 1 1    89
March .....	3 19 3	93	March .....	3 4 1    94
April .....	3 19 3	93	April .....	3 2 9    91
May .....	4 13 9	111	May .....	3 9 11    102
June .....	4 7 10	104	June .....	3 5 10    96
July .....	4 4 5	99	July .....	2 18 10    86
August .....	4 4 6	99	August .....	3 0 1    83
September .....	3 15 3	89	September .....	2 15 8    81
October .....	4 1 11	96	October .....	4 2 8    121
November .....	4 6 7	102	November .....	4 10 11    133
December .....	4 8 7	104	December .....	3 18 1    114
<i>1846-61.</i>			<i>1862-77.</i>	
Average Rate of 16 Years, £4 11s. 0d.		Rate of 16 Yrs. =100.	Average Rate of 16 Years, £3 16s. 6d.	Rate of 16 Yrs. =100.
January .....	£ s. d. 4 3 3	103	January .....	£ s. d. 4 0 8    105
February .....	4 1 1	100	February .....	3 12 9    95
March .....	4 2 3	102	March .....	3 11 8    93
April .....	4 0 6	99	April .....	3 11 0    93
May .....	4 3 6	103	May .....	4 1 10    107
June .....	3 18 5	97	June .....	3 16 10    100
July .....	3 16 5	94	July .....	3 11 8    94
August .....	3 14 4	92	August .....	3 12 3    94
September .....	3 13 11	91	September .....	3 5 5    85
October .....	4 2 7	102	October .....	4 2 3    107
November .....	4 8 8	109	November .....	4 8 9    116
December .....	4 5 6	105	December .....	4 3 4    109

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TABLE IV. *Continued.*—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF FRANCE.

1846-53.			1854-61.		
Average Rate of 8 Years, £3 18s. 7d.		Rate of 8 Years =100.	Average Rate of 8 Years, £4 12s. 0d.		Rate of 8 Years =100.
January .....	£ s. d. 3 19 1	100	January .....	£ s. d. 4 17 0	105
February .....	4 0 0	102	February .....	4 16 5	105
March .....	3 17 11	99	March .....	4 14 4	102
April .....	3 17 6	99	April .....	4 8 9	96
May .....	3 17 6	99	May .....	4 9 9	97
June .....	3 17 6	99	June .....	4 7 4	95
July .....	3 17 6	99	July .....	4 6 3	94
August .....	3 17 6	99	August .....	4 5 4	93
September .....	3 17 6	99	September .....	4 4 9	92
October .....	3 19 8	101	October .....	4 14 10	103
November .....	4 0 0	102	November .....	5 1 0	110
December .....	4 1 3	103	December .....	4 18 3	107

1862-69.			1870-77.		
Average Rate of 8 Years, £3 15s. 0d.		Rate of 8 Years =100.	Average Rate of 8 Years, £4 4s. 11d.		Rate of 8 Years =100.
January .....	£ s. d. 4 4 11	113	January .....	£ s. d. 4 8 9	104
February .....	3 19 8	106	February .....	4 7 10	103
March .....	3 18 1	104	March .....	4 5 6	100
April .....	3 11 3	95	April .....	4 2 10	98
May .....	3 14 3	99	May .....	4 2 3	97
June .....	3 9 5	92	June .....	3 18 9	92
July .....	3 10 0	93	July .....	3 19 10	94
August .....	3 8 10	92	August .....	4 4 6	99
September .....	3 9 0	92	September .....	4 5 0	100
October .....	3 17 11	104	October .....	4 6 7	101
November .....	4 0 4	107	November .....	4 9 7	105
December .....	3 16 9	102	December .....	4 7 6	103

1846-61.			1862-77.		
Average Rate of 16 Years, £4 5s. 3d.		Rate of 16 Yrs. =100.	Average Rate of 16 Years, £3 19s. 11d.		Rate of 16 Yrs. =100.
January .....	£ s. d. 4 8 0	103	January .....	£ s. d. 4 6 10	109
February .....	4 8 3	103	February .....	3 13 9	92
March .....	4 6 1	101	March .....	4 1 9	103
April .....	4 3 1	97	April .....	3 17 0	96
May .....	4 3 8	98	May .....	3 18 3	98
June .....	4 2 5	97	June .....	3 14 1	92
July .....	4 1 10	96	July .....	3 14 11	94
August .....	4 1 5	95	August .....	3 16 8	96
September .....	4 1 1	95	September .....	3 17 0	96
October .....	4 7 3	102	October .....	4 2 3	103
November .....	4 10 6	106	November .....	4 4 11	106
December .....	4 9 9	105	December .....	4 2 1	108

*Rates of Banks of England, France, and Germany. 63*

**TABLE IV. Continued.—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF GERMANY.**

1846-53.			1854-61.		
Average Rate of 8 Years, £4 6s. 2d.		Rate of 8 Years =100.	Average Rate of 8 Years, £4 8s. 8d.		Rate of 8 Years =100.
January .....	£ s. d. 4 7 6	105	January .....	£ s. d. 4 14 2	106
February .....	4 6 3	104	February .....	4 9 4	101
March .....	4 4 5	101	March .....	4 8 5	100
April .....	4 5 0	102	April .....	4 7 6	99
May .....	4 5 0	102	May .....	4 6 6	97
June .....	4 5 0	102	June .....	4 5 0	96
July .....	4 7 0	105	July .....	4 4 0	95
August .....	4 6 3	104	August .....	4 3 8	94
September .....	4 5 0	102	September .....	4 6 8	98
October .....	4 7 6	105	October .....	4 11 5	103
November .....	4 7 6	105	November .....	4 13 6	105
December .....	4 7 6	105	December .....	4 14 10	107

1862-69.			1870-77.		
Average Rate of 8 Years, £4 12s. 0d.		Rate of 8 Years =100.	Average Rate of 8 Years, £4 9s. 9d.		Rate of 8 Years =100.
January .....	£ s. d. 4 12 7	100	January .....	£ s. d. 4 16 0	107
February .....	4 7 6	95	February .....	4 0 9	90
March .....	4 6 3	94	March .....	4 0 5	89
April .....	4 6 3	94	April .....	4 2 6	92
May .....	4 13 4	101	May .....	4 6 6	96
June .....	4 15 0	103	June .....	4 4 11	95
July .....	4 12 5	100	July .....	4 11 3	102
August .....	4 5 8	93	August .....	4 12 8	103
September .....	4 8 8	96	September .....	4 9 2	99
October .....	4 19 1	107	October .....	4 18 4	110
November .....	4 19 8	108	November .....	4 17 0	108
December .....	4 17 8	106	December .....	4 17 10	109

1846-61.			1862-77.		
Average Rate of 16 Years, £4 7s. 5d.		Rate of 16 Yrs. =100.	Average Rate of 16 Years, £4 10s. 11d.		Rate of 16 Yrs. =100.
January .....	£ s. d. 4 10 0	104	January .....	£ s. d. 4 14 3	103
February .....	4 7 9	100	February .....	4 4 1	92
March .....	4 8 5	101	March .....	4 3 4	91
April .....	4 6 3	99	April .....	4 4 4	92
May .....	4 5 9	98	May .....	4 9 11	99
June .....	4 5 0	97	June .....	4 9 11	99
July .....	4 5 6	98	July .....	4 11 10	101
August .....	4 4 9	97	August .....	4 9 2	98
September .....	4 5 10	98	September .....	4 8 11	98
October .....	4 9 5	102	October .....	4 8 9	97
November .....	4 10 6	103	November .....	4 18 4	108
December .....	4 11 2	104	December .....	4 17 9	107

TABLE V.—BANKERS' CLEARING HOUSE RETURNS, 1868-1878. Arranged so as to Show the Amount of Business Passing Through the Clearing House in each Month of the Year.

1868.			1869.		
Amount of Year, £3,466,045,000.			Amount of Year, £3,601,676,000.		
Weekly Average, £65,397,075 = 100.			Weekly Average, £69,263,000 = 100.		
Weekly Average in Months of			Weekly Average in Months of		
	£			£	
January .....	62,569,200	96	January .....	69,933,000	101
February .....	65,565,750	100	February .....	72,533,500	105
March .....	66,276,000	101	March .....	73,395,400	106
April .....	66,740,600	103	April .....	70,375,000	101
May .....	60,474,500	92	May .....	67,652,000	98
June .....	65,802,750	100	June .....	67,663,000	98
July .....	68,612,800	105	July .....	70,428,500	103
August .....	66,087,000	101	August .....	68,489,000	99
September .....	61,732,400	94	September .....	63,408,000	92
October .....	64,569,500	99	October .....	71,227,750	103
November .....	68,038,250	104	November .....	68,244,000	98
December .....	68,103,000	104	December .....	68,762,600	99

1870.			1871.		
Amount of Year, £3,904,825,000.			Amount of Year, £4,787,217,000.		
Weekly Average, £75,092,788 = 100.			Weekly Average, £92,061,865 = 100.		
Weekly Average in Months of			Weekly Average in Months of		
	£			£	
January .....	80,264,750	107	January .....	78,378,250	85
February .....	79,078,250	105	February .....	81,901,750	89
March .....	79,233,800	106	March .....	85,587,600	93
April .....	71,934,000	96	April .....	88,825,000	96
May .....	76,056,500	101	May .....	90,388,000	98
June .....	75,536,600	101	June .....	82,309,000	89
July .....	86,226,250	115	July .....	103,400,000	112
August .....	73,354,200	98	August .....	92,522,000	100
September .....	63,539,750	85	September .....	97,609,250	106
October .....	71,584,750	95	October .....	106,569,250	116
November .....	74,085,800	99	November .....	98,099,800	107
December .....	69,759,000	93	December .....	99,571,250	108

1872.			1873.		
Amount of Year, £5,903,720,000.			Amount of Year, £6,161,500,000.		
Weekly Average, £113,533,076 = 100.			Weekly Average, £116,254,717 = 100.		
Weekly Average in Months of			Weekly Average in Months of		
	£			£	
January .....	121,418,800	107	January .....	121,166,800	104
February .....	106,263,250	93	February .....	124,083,250	107
March .....	119,238,750	105	March .....	122,253,000	105
April .....	106,968,750	94	April .....	115,302,400	99
May .....	110,579,600	97	May .....	111,203,000	96
June .....	112,854,250	99	June .....	111,864,250	96
July .....	127,685,600	112	July .....	119,564,400	103
August .....	111,564,000	98	August .....	115,660,000	100
September .....	108,025,750	95	September .....	104,408,250	90
October .....	117,493,000	103	October .....	115,498,000	100
November .....	103,991,000	91	November .....	118,251,500	102
December .....	108,048,250	95	December .....	114,595,800	98

**TABLE V. Continued.—BANKERS' CLEARING HOUSE RETURNS, 1868-1878.**  
Arranged so as to Show the Amount of Business Passing Through the Clearing House in each Month of the Year.

1874.			1875.		
Amount of Year, £5,916,195,000.			Amount of Year, £5,646,993,000.		
Weekly Average, £113,771,057 = 100.			Weekly Average, £108,734,000 = 100.		
Weekly Average in Months of			Weekly Average in Months of		
	£			£	
January .....	115,069,250	101	January .....	120,393,000	110
February .....	116,598,000	102	February .....	123,265,000	113
March .....	116,892,000	103	March .....	120,125,000	110
April .....	112,515,800	99	April .....	110,022,000	101
May .....	111,751,000	98	May .....	111,180,000	102
June .....	115,464,500	101	June .....	107,083,000	99
July .....	117,503,000	103	July .....	105,108,000	97
August .....	108,045,500	95	August .....	101,123,000	93
September .....	116,944,000	103	September .....	101,075,000	93
October .....	109,564,750	96	October .....	99,905,000	92
November .....	111,989,000	98	November .....	106,080,000	98
December .....	111,977,000	98	December .....	99,452,000	92

1876.			1877.		
Amount of Year, £4,958,963,000.			Amount of Year, £5,004,991,000.		
Weekly Average, £95,479,000 = 100.			Weekly Average, £96,249,826 = 100.		
Weekly Average in Months of			Weekly Average in Months of		
	£			£	
January .....	113,179,000	118	January .....	102,107,000	106
February .....	105,200,000	110	February .....	98,496,000	102
March .....	100,144,000	105	March .....	99,694,000	104
April .....	99,104,000	104	April .....	91,762,000	96
May .....	97,729,000	102	May .....	95,752,000	100
June .....	82,067,000	86	June .....	94,698,000	98
July .....	98,854,000	103	July .....	101,247,000	105
August .....	86,982,000	91	August .....	90,427,000	94
September .....	85,778,000	90	September .....	91,340,000	95
October .....	92,366,000	96	October .....	101,204,000	105
November .....	93,108,000	97	November .....	93,999,000	98
December .....	91,237,000	95	December .....	93,149,000	97

1878.			Weekly Average in Months During the		
Amount of Year, £5,005,248,000.			Eleven Years, 1868-78.		
Weekly Average, £96,254,000 = 100.			Average of Eleven Years, 1868-78,		
Weekly Average in Months of			£94,589,319 = 100.		
	£			£	
January .....	100,805,000	104	January .....	98,207,641	104
February .....	100,329,000	104	February .....	97,573,977	103
March .....	104,129,000	108	March .....	98,815,322	104
April .....	97,087,000	101	April .....	93,694,231	98
May .....	92,823,000	96	May .....	93,234,872	98
June .....	100,112,000	104	June .....	92,314,032	97
July .....	111,209,000	115	July .....	100,894,413	106
August .....	91,737,000	95	August .....	91,453,654	96
September .....	91,477,000	95	September .....	89,576,127	94
October .....	94,132,000	98	October .....	94,919,454	100
November .....	81,344,000	84	November .....	92,475,486	97
December .....	86,384,000	90	December .....	91,912,627	97



## CHAPTER VIII.

VARIATIONS IN THE RATE CHARGED BY THE  
BANK OF ENGLAND FROM 1844 TO 1878.

THOUGH the rate of discount charged by the Bank of England is, perhaps, no longer at the present time so close a guide to the market value of money as it formerly was in years past, yet it is still a most valuable index to the fluctuations in that market, and to the course of monetary affairs generally, and an examination into the variations of the rate charged is a necessary part of an analysis of the transactions of the Bank. The tables which will be found at the end of this chapter have been prepared from sources which may be relied on for their accuracy. Of these tables, the first, No. VI., gives the average rate of discount charged month by month by the Bank of England during the period from 1845 to 1878; it also shows the proportion which the rate charged in each month bore to the average rate of the year. Summary tables, at page 109, show the average monthly rates for the seventeen

years, 1845-61, 1862-1878, and for the whole period, 1845 to 1878. Table No. VII., pages 78-9, gives at one view a statement of the changes in the Bank rate from the date in 1844, when the Bank Act came into operation, to the close of the year 1878. It gives the number of changes of the rate in each year, and the total number of days at each rate in each year. A supplementary Table, No. XIII., page 110 is added, giving the number of days at each rate, arranged from the lowest rate to the highest ; and the number of days at each rate, arranged from the greatest number of days which each rate lasted to the smallest.

These tables thus form, collectively, a kind of rough chart, showing the course which the market value of money has taken during the entire period over which they extend. Some curious information can be gathered from examining them. First, there is the greatest difference, as will be seen at a glance, between the course of business in one year and another. In one year, 1851, no change is marked ; in each of the years 1846, 1849, and 1850, there is but one alteration of the rate ; in the year 1873 no less than twenty-four changes, one nearly every fortnight, are marked. Next, if we look down the column in the table giving the total number of changes in the Bank rate, we shall be struck with the fact of how much that number has increased. As far down as the year 1860 the changes are comparatively few in number. Yet the period from 1844 to 1859 included two panics, those of 1847 and 1857, both of them of considerable severity. In both of these years, 1847 and 1857, the changes in the Bank rate amounted to nine in number. This was considered in those days an almost unprecedented number of variations. If we exclude these two years, we shall find in the earlier period under observation, namely, that from 1844 to 1860, only two years, 1855 and 1856, in which the number of changes amounted to seven in each ; two years besides, 1853 and 1858, in which they were six in number ; in one year, 1859, there were five changes ; and in the remaining years the number of changes varied

from one to three ; in one year, 1851, there was actually no change whatever recorded. But in the part of the table dealing with the period closer in date to the present time, we shall find that a totally different state of things prevails. If we carry our eyes down this later part of the column we shall find that, with the exception of the year 1862, in which there were five changes, no year from 1860 onwards has less than ten changes recorded as occurring in it, with the exception of those years which, like 1867, 1868, 1869, and again 1876 and 1877, were years of great commercial depression. In one year in recent times, 1873, as mentioned before, no less than twenty-four changes are recorded, and an average of a variation once in every month will be seen to be not an uncommon thing. The year 1879, in which up to the month of April no less than four changes have been announced, may possibly equal many of its predecessors, if the remaining portion of the twelvemonth follows the same course in the rapidity and the greatness of its fluctuations.

Further, if we examine the smaller tables we shall find that during the greater part of the time the rate charged by the Bank has been, comparatively speaking, a low one. Out of 12,535 days under consideration, the Bank rate stood at 3 per cent., or below it, during 6,118—that is to say, during nearly half out of the whole number. And if we take the rates up to 4 per cent. inclusive, which we may call moderate rates, as even 4 per cent. can hardly be called a high rate, we shall find that they comprise two-thirds of the whole. A column has been added to the two smaller tables for facility of comparison, showing the proportionate part of the time which each rate has stood at, reckoning the whole period as equalling 1,000. This column shows us that during more than one-fifth of the whole time a rate of 3 per cent. has been charged, and that rates varying from  $4\frac{1}{2}$  per cent. to 10 per cent. have been in force during one-third of the whole period. The whole results may be summarised thus :—From 1844 to 1878, a low rate, from 2 per cent. to  $2\frac{1}{2}$  per cent., was charged

during about one-quarter of the time ; a moderate rate, not exceeding 3 per cent., was charged during nearly half the time ; a rate not exceeding 4 per cent. was charged during two-thirds of the time ; and during one-third of the time a high rate of  $4\frac{1}{2}$  per cent. and upwards was charged.

If we look to the larger table again, we shall see a fact expressed very clearly, the force of which every one whose business is to deal in money has experienced during the last few years, namely, that the number of days at the higher rates has been greater in the more recent periods. If we except the panic year, 1847, we shall never find, down to the year 1853 inclusive, the rate exceeding 5 per cent. ; and indeed a 5 per cent. rate was then most rarely attained. In those days a 4 per cent. rate was one of unusual severity. In the latter part of the table the higher rates are the more frequent. Though it may have been but for a week, yet during the last nine years the Bank rate has never failed to reach 5 per cent. ; even in such a year as 1876, during which the average rate for the year was but little more than half 5 per cent., being only £2 12s. 1d. for the twelvemonth, and in 1877, in which the yearly average was only £2 18s., the same result occurred. Thus also during the last ten years the Bank rate has always stood for some short time at 4 per cent., while during the first ten years under consideration that rate was only reached three times. Yet, again, it is during the more recent years that extremely low rates continuing over long periods of time have prevailed.

If we take the year 1860, again, as a central point for our investigation, we shall find that the Bank rate only dropped to 2 per cent. during two of the years which preceded it, namely, in 1851 and 1853, and in one of those years, 1853, the rate only stood at 2 per cent. for six days. But in eight of the years since 1860, namely, in 1862, 1867, 1868, 1871, 1875, 1876, 1877, and 1878, the Bank rate has stood at 2 per cent., as well as in the present year 1879. Indeed, out of two years just passed, namely, 1876 and 1877, the

Bank rate has been at 2 per cent. during no less a length of time than 425 days, that is to say, for more than one year out of the two ; and in the years 1867 and 1868 the rate was at 2 per cent. for 483 days out of the two years, one year and four months. Therefore, though a very low rate has frequently prevailed during recent years, a very high rate has also been frequently in force. While the fluctuations in the Bank rate of late have been more frequent, they have also been more marked. The variations are thus shown to have been more extreme during the recent periods. Thus, for example, to take instances from the earlier and the later portions of the table, the average rate in 1846 was £3 6s. 6d., but the highest rate in that year was  $3\frac{1}{2}$  ; the average rate in 1875 was lower, being only £3 4s. 8d., but the highest rate reached in that year was 6 per cent., though that rate was only charged during seven days, and 5 per cent. was only charged during an equal length of time. It may be added that the proportion of the reserve of the Bank to its liabilities was very much the same during both these years ; it was 42 per cent. in 1846, and 43 per cent. in 1875. Though the variations in the rate have been more frequent of recent years, this cannot fairly be ascribed to the fact that the proportion of the reserve to the liabilities has on an average greatly changed during the period under consideration. Nor can the number of the fluctuations in the rate be ascribed in anything but a very general way to the action of the Bank itself. The Bank has been merely, in a great degree, the passive agent for registering the changes in the value of money which have either actually occurred or have been imminent in the outside market. If the Bank has taken the lead in making any change in the rate, it has generally been because it was obvious that the outside rate would conform to the movement, whether the change was a rise or a fall. There have been periods, no question, when the Bank rate has not been in exact harmony with the market rate. Thus, for instance, in the autumn of 1877, the Bank put its rate up to 5 per

cent., and kept it there for a period of 49 days, a period of seven weeks, though the market rate did not stand at anything like so high a figure during that time. During this period the Bank was carrying out strictly and honestly one of the most difficult of the important duties with which it is charged, and that is the duty imposed on it through the fact that it is the custodian of the bullion reserve of the country. In the pursuance of this duty the Bank put its rate up, though there was no corresponding disposition to a rise in the outer market, and this action on its part attracted in time sufficient gold to its treasury.

But leaving these exceptional cases on one side, the main point remains, that the fluctuations in the Bank rate represent, broadly speaking, the fluctuations in the market value of money, and further, that these variations tend to increase in number during recent times, and also to become more sharp. As there is no reason for ascribing the fact of these variations to the action of the Bank itself, the reason must be sought in the action of the outside market. Some of the occasions on which high rates have been charged, have been times when bullion has been required for export. Some have been periods when the demand for loanable capital for business purposes has been great. Periods immediately following those years in which great amounts of capital have been set fast, or exported out of the country, are those in which the rates of interest have naturally been high. In 1847 the large sums set fast in the construction of railways, in 1857 the creation of a considerable number of joint stock companies, in both these periods, and in 1866, over-speculation led to the panics which took place at these respective dates. [The greater swiftness with which the panic of 1866 came on, when compared with those which preceded it, was due to the same cause as that which has occasioned the greater susceptibility to fluctuation in the value of money in recent years, namely, the vast growth of loanable capital in the country, and of the money held by banks and discount houses, in comparison with the reserve of ready

money of capital in the form of hard cash which is held against these liabilities. The real reserve in actual cash of the banks of the country is the amount of the reserve held by the Bank of England, and though that reserve has been considerably augmented of late, yet it has not increased in proportion to the demands which may be made upon it. That greater difficulties have not occurred of late years in our banking history is due to the great care taken generally by the Bank of England, which has been careful to adjust its rate in such a manner as to protect the reserve of bullion which it holds. When a demand arises for bullion for exportation without any corresponding demand for loanable capital for discount purposes occurring at the same time, it may become necessary for the Bank to raise the rate which it charges considerably above the market rate in order to protect its reserve. But as the amount of loanable capital outside the Bank of England has till recently increased in a larger proportion than the amount of loanable capital which the Bank holds, it has become more difficult for the Bank to maintain that influence over the market rate which it is needful for it to exert. The more close is the harmony existing between the market rate and the Bank rate the more swiftly is the Bank able to influence the market rate, and thus to regulate the amount of its reserve. The more carefully the business of banking is conducted throughout the country the less will the danger be of those demands which arise through the results of inflation of business and over-trading. The influence which bankers generally can exert over the business of the country is very great, and considering the extreme delicacy of our money market the more needful it is that that influence should be continually exerted on the side of prudence.

This statement will give our readers a clear view of the fluctuations in the rate of interest charged by the Bank of England during the period from 1844 to 1878. We propose in the next two chapters to carry the investigation somewhat further, and to

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examine in some detail into the rates charged by the Bank of France and the Bank of Germany in a similar manner. A table has been added, marked No. XII., at page 109, which shows at one view the fluctuations in the rates of discount charged by the Banks of England, France, and Germany, for the seventeen years, 1845-1861, 1862-1878, and for the thirty-four years, 1845-1878, collectively. This shows at one view what the course of these fluctuations has been. It will be observed that the last quarter in the year is the period of the greatest business activity throughout Europe; but there is a closer correspondence between the fluctuations in the rates charged in France and Germany, as is natural from the conditions under which business is conducted on the Continent, than between the rates charged in those countries and in England.



TABLE VI.—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF ENGLAND—1844 TO 1878.

1845.			1846.			1847.		
Average Rate of Year, £2 13s. 8d.		Rate of Year =100.	Average Rate of Year, £3 6s. 6d.		Rate of Year =100.	Average Rate of Year, £5 3s. 6d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	2 10 0	93	Feb. ...	3 10 0	105	Feb. ...	3 10 0	68
March ..	2 10 0	93	March ..	3 10 0	105	March ..	4 0 0	77
April ...	2 10 0	93	April ...	3 10 0	105	April ...	4 10 2	88
May ...	2 10 0	93	May ...	3 10 0	105	May ...	5 0 0	97
June ...	2 10 0	93	June ...	3 10 0	105	June ...	5 0 0	97
July ...	2 10 0	93	July ...	3 10 0	105	July ...	5 0 0	97
August.	2 10 0	93	August.	3 9 11	105	August.	5 10 0	106
Sept. ...	2 10 0	93	Sept. ...	3 0 0	90	Sept. ...	5 9 0	105
October	2 15 9	103	October	3 0 0	90	October	6 10 0	126
Nov. ...	3 6 9	124	Nov. ...	3 0 0	90	Nov. ...	7 12 4	147
Dec. ...	3 10 0	130	Dec. ...	3 0 0	90	Dec. ...	5 18 0	114

1848.			1849.			1850.		
Average Rate of Year, £3 14s. 5d.		Rate of Year =100.	Average Rate of Year, £2 18s. 7d.		Rate of Year =100.	Average Rate of Year, £2 10s. 1d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 0 0	107	Feb. ...	3 0 0	102	Feb. ...	2 10 0	100
March ..	4 0 0	107	March ..	3 0 0	102	March ..	2 10 0	100
April ...	4 0 0	107	April ...	3 0 0	102	April ...	2 10 0	100
May ...	4 0 0	107	May ...	3 0 0	102	May ...	2 10 0	100
June ...	3 14 0	99	June ...	3 0 0	102	June ...	2 10 0	100
July ...	3 10 0	94	July ...	3 0 0	102	July ...	2 10 0	100
August.	3 10 0	94	August.	3 0 0	102	August.	2 10 0	100
Sept. ...	3 10 0	94	Sept. ...	3 0 0	102	Sept. ...	2 10 0	100
October	3 10 0	94	October	3 0 0	102	October	2 10 0	100
Nov. ...	2 19 9	80	Nov. ...	2 16 5	96	Nov. ...	2 10 0	100
Dec. ...	3 0 0	80	Dec. ...	2 10 0	85	Dec. ...	2 12 7	105

1851.			1852.			1853.		
Average Rate of Year, £3 0s. 0d.		Rate of Year =100.	Average Rate of Year, £2 3s. 0d.		Rate of Year =100.	Average Rate of Year, £3 13s. 10d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	3 0 0	100	Feb. ...	2 10 0	116	Feb. ...	2 12 7	71
March ..	3 0 0	100	March ..	2 10 0	116	March ..	3 0 0	81
April ...	3 0 0	100	April ...	2 6 7	108	April ...	3 0 0	81
May ...	3 0 0	100	May ...	2 0 0	93	May ...	3 0 0	81
June ...	3 0 0	100	June ...	2 0 0	93	June ...	3 8 0	93
July ...	3 0 0	100	July ...	2 0 0	93	July ...	3 10 0	95
August.	3 0 0	100	August.	2 0 0	93	August.	3 10 0	95
Sept. ...	3 0 0	100	Sept. ...	2 0 0	93	Sept. ...	4 4 0	114
October	3 0 0	100	October	2 0 0	93	October	5 0 0	135
Nov. ...	3 0 0	100	Nov. ...	2 0 0	93	Nov. ...	5 0 0	135
Dec. ...	3 0 0	100	Dec. ...	2 0 0	93	Dec. ...	5 0 0	135

TABLE VI. *Continued*—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF ENGLAND.

1854.			1855.			1856.		
Average Rate of Year, £5 2s. 3d.		Rate of Year =100.	Average Rate of Year, £4 17s. 10d.		Rate of Year =100.	Average Rate of Year, £6 1s. 2d.		Rate of Year =100.
Jan.....	£ s. d.	98	Jan.....	£ s. d.	102	Jan.....	£ s. d.	115
Feb. ...	5 0 0	98	Feb. ...	5 0 0	102	Feb. ...	7 0 0	115
March..	5 0 0	98	March..	5 0 0	102	March..	7 0 0	115
April ...	5 0 0	98	April ...	4 10 5	93	April ...	7 0 0	115
May ...	5 8 0	106	May ...	4 10 0	92	May ...	6 15 0	111
June ...	5 10 0	108	June ...	3 18 0	80	June ...	4 17 0	80
July ...	5 10 6	108	July ...	3 10 0	71	July ...	4 10 0	74
August.	5 2 9	101	August.	3 10 0	71	August.	4 10 0	74
Sept. ...	5 0 0	98	Sept. ...	4 3 6	85	Sept. ...	4 10 0	74
October	5 0 0	98	October	6 3 6	126	October	6 10 0	107
Nov. ...	5 0 0	98	Nov. ...	7 0 0	143	Nov. ...	7 0 0	115
Dec. ...	5 0 0	98	Dec. ...	7 0 0	143	Dec. ...	6 9 7	107
1857.			1858.			1859.		
Average Rate of Year, £6 13s. 3d.		Rate of Year =100.	Average Rate of Year, £3 4s. 7d.		Rate of Year =100.	Average Rate of Year, £2 14s. 7d.		Rate of Year =100.
Jan.....	£ s. d.	90	Jan.....	£ s. d.	183	Jan.....	£ s. d.	91
Feb. ...	6 0 0	90	Feb. ...	3 0 0	93	Feb. ...	2 10 0	91
March..	6 0 0	90	March..	3 0 0	93	March..	2 10 0	91
April ...	6 7 5	95	April ...	3 0 0	93	April ...	2 10 2	91
May ...	6 10 0	97	May ...	3 0 0	93	May ...	4 8 6	162
June ...	6 4 5	93	June ...	3 0 0	93	June ...	3 3 7	116
July ...	5 17 5	88	July ...	3 0 0	93	July ...	2 15 6	102
August.	5 10 0	82	August.	3 0 0	93	August.	2 10 0	91
Sept. ...	5 10 0	82	Sept. ...	3 0 0	93	Sept. ...	2 10 0	91
October	6 18 0	103	October	3 0 0	93	October	2 10 0	91
Nov. ...	9 8 0	141	Nov. ...	3 0 0	93	Nov. ...	2 10 0	91
Dec. ...	9 14 5	146	Dec. ...	2 13 9	83	Dec. ...	2 10 0	91
1860.			1861.			1862.		
Average Rate of Year, £4 3s. 7d.		Rate of Year =100.	Average Rate of Year, £5 5s. 4d.		Rate of Year =100.	Average Rate of Year, £2 10s. 7d.		Rate of Year =100.
Jan.....	£ s. d.	66	Jan.....	£ s. d.	131	Jan.....	£ s. d.	106
Feb. ...	4 0 0	96	Feb. ...	6 18 0	131	Feb. ...	2 10 0	99
March..	4 0 0	96	March..	7 16 3	148	March..	2 10 0	99
April ...	4 14 7	113	April ...	5 8 3	103	April ...	2 10 0	99
May ...	4 12 5	110	May ...	5 11 7	106	May ...	2 13 9	106
June ...	4 0 0	96	June ...	6 0 0	114	June ...	3 0 0	119
July ...	4 0 0	96	July ...	6 0 0	114	July ...	2 12 1	103
August.	4 0 0	96	August.	4 16 7	91	August.	2 0 0	79
Sept. ...	4 0 0	96	Sept. ...	3 15 9	72	Sept. ...	2 0 0	79
October	4 0 0	96	October	3 10 0	66	October	2 1 3	81
Nov. ...	5 0 3	120	Nov. ...	3 1 5	58	Nov. ...	3 0 0	119
Dec. ...	4 19 9	119	Dec. ...	3 0 0	57	Dec. ...	3 0 0	119

TABLE VI. *Continued*—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF ENGLAND.

1863.			1864.			1865.		
Average Rate of Year, £4 8s. 2d.		Rate of Year =100.	Average Rate of Year, £7 8s. 0d.		Rate of Year =100.	Average Rate of Year, £4 15s. 4d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	3 13 6	83	Feb. ...	7 9 9	101	Feb. ...	5 14 2	119
March ...	4 6 0	97	Feb. ...	6 18 0	93	Feb. ...	5 0 0	105
April ...	4 0 0	91	March ..	6 0 0	81	March...	4 12 2	97
May ...	3 16 7	87	April ...	6 7 6	86	April ...	4 0 0	84
June ...	3 9 5	79	May ...	8 7 5	113	May ...	4 8 0	92
July ...	4 0 0	91	June ...	6 8 9	87	June ...	3 4 0	67
August.	4 0 0	91	July ...	6 6 0	85	July ...	3 2 5	65
Sept. ...	4 0 0	91	August.	8 0 2	108	August.	4 0 5	84
October	4 0 0	91	Sept. ...	8 12 0	116	Sept. ...	3 19 7	83
Nov. ...	5 13 9	129	October	9 0 0	121	October	6 14 0	141
Dec. ...	7 15 0	176	Nov. ...	8 0 2	108	Nov. ...	6 16 3	143
			Dec. ...	6 12 0	89	Dec. ...	6 4 2	130

1866.			1867.			1868.		
Average Rate of Year, £6 19s. 0d.		Rate of Year =100.	Average Rate of Year, £2 10s. 9d.		Rate of Year =100.	Average Rate of Year, £2 1s. 11d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	8 0 2	115	Feb. ...	3 10 0	138	Feb. ...	2 0 0	95
March ..	7 3 7	103	Feb. ...	2 17 7	113	Feb. ...	2 0 0	95
April ...	6 12 0	95	March ..	3 0 0	118	March ..	2 0 0	95
May ...	6 0 0	86	April ...	3 0 0	118	April ...	2 0 0	95
June ...	9 1 2	130	May ...	3 0 9	119	May ...	2 0 0	95
July ...	10 0 0	144	June ...	2 10 0	98	June ...	2 0 0	95
August.	10 0 0	144	July ...	2 9 0	96	July ...	2 0 0	95
Sept. ...	8 18 0	128	August.	2 0 0	79	August.	2 0 0	95
October	5 1 5	73	Sept. ...	2 0 0	79	Sept. ...	2 0 0	95
Nov. ...	4 10 0	65	October	2 0 0	79	October	2 0 0	95
Dec. ...	4 1 7	59	Nov. ...	2 0 0	79	Nov. ...	2 3 0	103
	3 17 9	56	Dec. ...	2 0 0	79	Dec. ...	3 0 0	143

1869.			1870.			1871.		
Average Rate of Year, £3 4s. 2d.		Rate of Year =100.	Average Rate of Year, £3 2s. 0d.		Rate of Year =100.	Average Rate of Year, £2 17s. 8d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	3 0 0	93	Feb. ...	3 0 0	97	Feb. ...	2 10 0	87
March ..	3 0 0	93	Feb. ...	3 0 0	97	Feb. ...	2 10 0	87
April ...	3 0 0	93	March ..	3 0 0	97	March ..	3 0 6	104
May ...	4 0 0	125	April ...	3 0 0	97	April ...	2 13 6	93
June ...	4 9 9	140	May ...	3 0 0	97	May ...	2 10 0	87
July ...	4 0 0	125	June ...	3 0 0	97	June ...	2 6 7	80
August.	3 6 0	103	July ...	3 9 2	111	July ...	1 14 7	60
Sept. ...	2 17 5	89	August.	5 2 7	165	August.	2 0 0	69
October	2 10 0	78	Sept. ...	3 1 6	99	Sept. ...	2 6 7	81
Nov. ...	2 10 0	78	October	2 10 0	81	October	5 9 0	189
Dec. ...	2 17 9	90	Nov. ...	2 10 0	81	Nov. ...	4 9 3	154
	3 0 0	93	Dec. ...	2 10 0	81	Dec. ...	3 5 9	114

TABLE VI. *Continued*—MONTHLY AVERAGES OF MINIMUM RATE OF BANK OF ENGLAND.

1872.			1873.			1874.		
Average Rate of Year, £4 2s. 0d.		Rate of Year =100.	Average Rate of Year, £4 15s. 10d.		Rate of Year =100.	Average Rate of Year, £3 13s. 10d.		Rate of Year =100.
Jan.....	£ s. d. 3 0 0	73	Jan.....	£ s. d. 4 11 9	96	Jan.....	£ s. d. 3 18 9	106
Feb. ....	3 0 0	73	Feb. ....	3 10 0	73	Feb. ....	3 10 0	95
March..	3 0 0	73	March..	3 13 0	76	March..	3 10 0	95
April ...	3 14 0	90	April ...	4 0 0	83	April ...	3 10 0	95
May ...	4 15 3	116	May ...	5 5 3	110	May ...	4 0 5	109
June ...	3 10 0	85	June ...	6 3 7	129	June ...	2 16 5	76
July ...	3 5 3	79	July ...	5 1 7	106	July ...	2 10 9	69
August..	3 10 0	85	August..	3 7 11	71	August..	3 13 0	99
Sept. ...	3 14 3	90	Sept. ...	3 2 10	65	Sept. ...	3 0 0	81
October	5 14 9	140	October	6 1 5	127	October	3 11 7	97
Nov. ...	6 9 9	158	Nov. ...	8 2 0	169	Nov. ...	4 8 2	119
Dec. ...	5 9 9	133	Dec. ...	4 17 7	102	Dec. ...	6 0 0	163

1875.			1876.			1877.		
Average Rate of Year, £3 4s. 8d.		Rate of Year =100.	Average Rate of Year, £2 12s. 1d.		Rate of Year =100.	Average Rate of Year, £2 18s. 0d.		Rate of Year =100.
Jan.....	£ s. d. 4 13 5	144	Jan.....	£ s. d. 4 15 3	183	Jan.....	£ s. d. 2 0 0	69
Feb. ....	2 18 7	90	Feb. ....	4 0 0	154	Feb. ....	2 0 0	69
March..	3 10 0	108	March..	3 19 0	152	March..	2 0 0	69
April ...	3 10 0	108	April ...	2 14 6	104	April ...	2 0 0	69
May ...	3 10 0	108	May ...	2 0 0	77	May ...	2 19 0	102
June ...	3 10 0	108	June ...	2 0 0	77	June ...	3 0 0	103
July ...	3 2 11	97	July ...	2 0 0	77	July ...	2 6 3	79
August..	2 4 7	69	August..	2 0 0	77	August..	2 2 6	73
Sept. ...	2 0 0	62	Sept. ...	2 0 0	77	Sept. ...	3 0 0	103
October	3 2 11	97	October	2 0 0	77	October	4 12 0	158
Nov. ...	3 11 0	110	Nov. ...	2 0 0	77	Nov. ...	4 17 9	168
Dec. ...	3 1 10	96	Dec. ...	2 0 0	77	Dec. ...	4 0 0	138

1878.			1845-78.		
Average Rate of Year, £3 15s. 8d.		Rate of Year =100.	Average Rate of 34 Years, £3 17s. 9d.		Rate of 34 Yrs =100.
January .....	£ s. d. 3 6 6	88	January .....	£ s. d. 4 0 6	103
February .....	2 0 0	53	February .....	3 15 0	96
March .....	2 3 6	57	March .....	3 15 2	96
April .....	3 0 0	79	April .....	3 14 6	95
May .....	3 0 6	80	May .....	4 1 1	104
June .....	2 10 6	67	June .....	3 15 11	98
July .....	3 16 3	101	July .....	3 13 4	94
August .....	4 14 0	125	August .....	3 13 2	94
September .....	5 0 0	133	September .....	3 10 0	90
October .....	5 13 0	151	October .....	4 2 6	105
November .....	5 11 9	149	November .....	4 8 8	114
December .....	5 0 0	133	December .....	4 4 5	108

TABLE VII.—BANK OF ENGLAND  
TABLE OF THE CHANGES IN THE RATE OF DISCOUNT CHARGED BY THE  
YEAR, SINCE 1ST SEPTEMBER, 1844 (when the Bank

Years.	Number of Changes.			2 %	2½ %	2½ %	3 %	3½ %	4 %
	Rise.	Fall.	Total.	Days.	Days.	Days.	Days.	Days.	Days.
1844	...	1	1	...	...	117	...	...	...
1845	2	...	2	...	...	289	21	55	...
1846	...	1	1	...	...	...	126	239	...
1847	6	3	9	...	...	...	14	7	177
1848	...	3	3	...	...	...	59	140	40
1849	...	1	1	...	...	39	326	...	...
1850	1	...	1	...	...	360	5	...	...
1851	...	...	...	...	...	...	365	...	...
1852	...	2	2	253	...	113	...	...	...
1853	6	...	6	6	...	14	133	91	14
1854	1	1	2	...	...	...	...	...	...
1855	4	4	8	...	...	...	...	84	7
1856	2	5	7	...	...	...	...	...	...
1857	6	3	9	...	...	...	...	...	...
1858	...	6	6	...	...	22	301	7	7
1859	2	3	5	...	...	288	35	14	...
1860	8	3	11	...	...	19	12	...	226
1861	3	8	11	...	...	...	54	49	21
1862	2	3	5	98	...	147	120	...	...
1863	8	4	12	...	...	...	31	12	241
1864	7	8	15	...	...	...	...	...	...
1865	8	8	16	...	...	...	42	21	98
1866	5	9	14	...	...	...	...	11	42
1867	...	3	3	159	...	56	112	38	...
1868	2	...	2	324	...	14	28	...	...
1869	3	4	7	...	...	77	183	21	49
1870	4	6	10	...	...	93	223	9	12
1871	4	6	10	70	28	124	66	14	23
1872	9	5	14	...	...	...	123	76	50
1873	11	13	24	...	...	...	35	76	61
1874	6	7	13	...	...	42	70	119	81
1875	5	7	12	56	...	21	84	147	43
1876	1	4	5	255	...	...	14	14	62
1877	4	3	7	170	...	7	100	...	39
1878	6	4	10	56	...	28	91	28	21
	126	138	264	1,447	28	1,870	2,773	1,272	1,314

## MINIMUM RATE OF DISCOUNT, 1844-78.

BANK OF ENGLAND, AND THE NUMBER OF DAYS AT EACH RATE IN EACH Act came into Operation), to DECEMBER 31ST, 1878.

4½ %	5 %	5½ %	6 %	6½ %	7 %	8 %	9 %	10 %	Total.	Years.
Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	
...	...	...	...	...	...	...	...	...	117	1844
...	...	...	...	...	...	...	...	...	365	1845
...	...	...	...	...	...	...	...	...	365	1846
...	127	56	46	...	10	28	...	...	365	1847
...	27	...	...	...	...	...	...	...	366	1848
...	...	...	...	...	...	...	...	...	365	1849
...	...	...	...	...	...	...	...	...	365	1850
...	...	...	...	...	...	...	...	...	365	1851
...	...	...	...	...	...	...	...	...	366	1852
14	93	...	...	...	...	...	...	...	365	1853
...	281	84	...	...	...	...	...	...	365	1854
84	102	14	...	...	74	...	...	...	365	1855
98	35	...	20	14	199	...	...	...	366	1856
...	...	84	127	77	4	24	4	45	365	1857
...	14	...	7	...	...	7	...	...	365	1858
28	...	...	...	...	...	...	...	...	365	1859
33	63	...	13	...	...	...	...	...	366	1860
14	49	...	91	...	52	35	...	...	365	1861
...	...	...	...	...	...	...	...	...	365	1862
...	25	...	27	...	8	21	...	...	365	1863
...	...	...	106	...	102	81	77	...	366	1864
52	39	14	49	...	50	...	...	...	365	1865
42	21	...	56	...	37	59	1	96	365	1866
...	...	...	...	...	...	...	...	...	365	1867
...	...	...	...	...	...	...	...	...	366	1868
35	...	...	...	...	...	...	...	...	365	1869
7	7	7	7	...	...	...	...	...	365	1870
...	40	...	...	...	...	...	...	...	365	1871
7	47	...	44	...	19	...	...	...	366	1872
43	45	...	57	...	22	13	13	...	365	1873
8	14	...	31	...	...	...	...	...	365	1874
...	7	...	7	...	...	...	...	...	365	1875
...	21	...	...	...	...	...	...	...	366	1876
...	49	...	...	...	...	...	...	...	365	1877
...	104	...	37	...	...	...	...	...	365	1878
465	1,210	259	725	91	577	268	95	141	12,535	

## CHAPTER IX.

VARIATIONS IN THE RATE CHARGED BY THE  
BANK OF FRANCE FROM 1844 TO 1878.

THE last chapter contained a table of the variations in the rate of discount charged by the Bank of England from the date when the Act of 1844 came into force to the present time. That date was selected as the starting point of the inquiry, because before that period it had scarcely been the custom of the Bank of England to make any variation at all in its rate. On some occasions, particularly in 1839, a higher rate was sometimes charged, but the regular Bank rate was 4 per cent. The market rate might be something very different, but the Bank did not concern itself with that. If the market rate was as high or higher than the Bank rate, the Bank was resorted to for discount purposes; but if the market rate was lower, the Bank did not reduce its rate accordingly. Earlier than the date from which that table starts—September 5th, 1844—the rate charged by the Bank of England is no guide to the market rate, and hence it was of no service to pursue the investigation further back than that time.

The same date has been taken in the table of the variations of the rate of the Bank of France, which accompanies this chapter, in order to facilitate comparison between the operations of the two banks.

The tables prepared for this purpose correspond exactly with those relating to the Bank of England. The first Table, No. VIII., gives the average rate of discount charged month by month by the Bank of France during the period from 1845 to 1877; it also shows the proportion which the rate charged in each month bore to the average rate of the year. A summary Table, page 109, shows the average monthly rates for the seventeen years, 1845-61, 1862-1878, and for the whole period, 1845-78. Table No. IX. gives the number of changes of the rate in each year, and the total number of days at each rate in each year. A supplementary Table, No. XIII., page 110 shows the number of days at each rate, arranged from the lowest rate to the highest, and the number of days at each rate arranged from the greatest number of days which each rate lasted to the smallest.

Before commencing this comparison, it will be desirable to give some description of the organisation of the Bank of France. The direction of the bank consists of the following persons:—First, there is a governor and two sub-governors; all these three are nominated by the Government, and are understood to be removable at its pleasure, but this power, as a matter of fact, is not exercised. Then there are fifteen directors, who are elected by the proprietors. Three of these directors must be selected from the class of the receivers-general, who are connected with the Government, and the management of the taxes of the country. The *receveurs-général*, or *trésoriers payeurs-général*, as they are most properly called, are the Government or Treasury Agents in the Departments. Five of the twelve remaining directors must be taken from the merchants, manufacturers, and leading business men in Paris. Besides these there are the three censors, who must be chosen from among the men engaged in business and manufactures, and who thus specially represent the



manufactures and the industry of Paris. The governor, the two sub-governors, and the fifteen directors, form the general council. Nothing is done without the presence and the surveillance of the censors, but they have not the right to vote, though they may speak and place their opinions on the minutes of the deliberations. Great part of the detail of the management rests with the two sub-governors, but the directors have the right to decide and vote on any measure which may come before them. The directors are understood to be rather checks on the two sub-governors than to be the actual managers of the business themselves. The system is understood to work well in practice, and the mixture of the more permanent portion of the governing body, which is selected by the Government, with the portion which is selected by the shareholders themselves, is an advantage in enabling a regular system of management to be steadily carried out from year to year. The Bank of France had at the date of its report in 1878, 86 branches situated in all the principal cities and towns of the country. Some of these branches carry on a very large business, and the amount of the business done by them in the aggregate considerably exceeds that done by the head office at Paris. Some of the branches, however, are small. It was mentioned in the report for 1878 that no fewer than 41 of them were carried on at a loss. Some of these branches had been but recently established; they give collectively very valuable assistance to the trade of the country; and it is certain that without them the position of the bank would be very inferior to that which it holds at the present time. The best description, perhaps, which can be given of the mode in which the business of the bank is carried on is to be found in the evidence given by M. Rouland, the late governor of the bank, before the "*Enquête sur les principes et les faits généraux qui régissent la circulation monétaire et fiduciaire*," held in Paris in 1865. M. Rouland, in describing the organisation of the governing body of the bank, stated that it consisted of two perfectly distinct elements, being, one, the portion

chosen by the State, and the other chosen by the shareholders. The persons chosen by the State, namely, the governor and the two sub-governors, are, according to M. Rouland's words, bound to see that the business of the bank is carried on for the public advantage. It is their duty to see that the statutes of the bank are not overstepped, and that the interests of trade and commerce are attended to. It is from them that the proposals to raise or to lower the rate of interest appear almost invariably to proceed. M. Rouland's description was as follows:—"Nothing of any description which concerns the great interests of the public, nothing which concerns the larger duties which the bank has to perform towards commerce and industry, nothing of all that class of business belongs to, or is left to the discretion of what he called the interested party." By this M. Rouland understood that portion of the governing body which directly represented the shareholders.

"This is a guarantee," M. Rouland continued, "which ought, of itself, to satisfy any who have any doubts on the subject. Does the public know it? Are the public aware that during sixty-two years it has not perhaps happened twice that the council has had to propose that the rate of discount should be raised or lowered? Does the public know that it is always the active element of the Government, which, watching vigilantly over the public interest, has made the proposition?" M. Rouland proceeded to say that the two portions of the governing body have always worked together in the most perfect harmony, and that in this harmony of the two portions of the governing body the security of the institution consists. M. Rouland spoke, and with a just sense of pride, of the part which the Bank of France had always taken in developing the commerce and industry of that country. Opinions have, however, been occasionally expressed that the commercial element is not sufficiently represented in the general council of management of the bank, and that it would be desirable to choose a greater number of representatives of various branches of business to form part of the direction.

This opinion is referred to here, but it is only right to add that the Bank of France has for many years appeared to carry on its business with great intelligence and judgment in many of the most essential points, and in particular its management during the period of suspension of specie payments in France, a period of the greatest difficulty, was a brilliant example of what the conduct of a bank should be under exceptionally trying circumstances.

The business of banking has not, it must be remembered, hitherto reached in France anything like the same proportions which it has done in Great Britain and Ireland. There are very few banks in France at all to be compared with the larger banks of England, Scotland, and Ireland. The "*Comptoir d'Escompte*," the "*Credit Lyonnais*," and the "*Société Générale*," and a few others, principally in the larger towns, obtain doubtless their share of the business—but no bank in France possesses anything like the organisation of the Bank of France, and its position is in this respect a very different one from that of the Bank of England.

The amounts of the balances kept by other banks with the Bank of France have never been published in the same manner as those kept by the London bankers with the Bank of England, and hence it is not possible to speak on the subject with the same certainty; but it is not likely that they approach anything like the same sums. From both these reasons, and from the general circumstances of the trade of the country, the Bank of France is not exposed to anything like the same sudden demands as the Bank of England. The current of commercial activity in France, flows with a very different and more equable course than in England. A country which depends so greatly on agriculture as France, where manufactures, commerce, and trade with other countries fill relatively so much smaller a space in the general activity of the people than in England, will always be likely to follow a more undisturbed course in the way of business than is, or can be, the case here. There are much fewer causes to lead to

the vast demands for bullion for export which occasionally operate so suddenly and so powerfully on our market. The sums on deposit with banks in France are, beyond question, both smaller in proportion to the numbers and to the general wealth of the population than in England, and they are also more generally deposited for longer periods than with us, and are much less likely to be suddenly required to be repaid. All these circumstances unite in causing the demands on the Bank of France to be of a totally different description from the demands on the Bank of England, and it is only natural to find that this difference is reflected in the variations of the rate of interest charged by the two banks. The average rate of discount charged by the Bank of France has been rather higher than that charged by the Bank of England for the period under consideration, but the duration of extremely high rates has been much shorter. Thus, the rate of the Bank of France has been oftener at 4 per cent. during the period under notice than at any other rate, and next to that rate 5 per cent. shows the highest proportion. A firm which had done business with the Bank of England would have been able to have its bills discounted at 3 and  $2\frac{1}{2}$  per cent. for fully an equal length of time as it would have been charged 4 per cent. by the Bank of France. The rate ruled at 3 per cent. for 2,773 days with the Bank of England, while it only stood at that rate for 1,594 days with the Bank of France, and while the Bank of England has charged 2 per cent. for 1,447 days, the same rate was charged by the Bank of France for 559 days only. But in the highest rates of all, the customers of the Bank of France would have had the advantage. The Bank of France has never raised its rate to 10 per cent., but the Bank of England has charged that rate for 141 days. The Bank of France charged 9 per cent. for 16 days only, but the Bank of England did so for 95 days, and while the French rate has been 8 per cent. for 41 days only, the rate of the Bank of England was at that point for 268 days.

The number of variations in the rate has been much

smaller in France than in England. During the period under consideration the Bank of France altered its rate 86 times only; the Bank of England altered its rate 264 times. The greatest number of variations in the rate of the Bank of England took place in 1873, when there were no less than 24 changes; during that year the Bank of France altered its rate four times only. The greatest number of changes in the rate of the Bank of France took place in 1864 when there were 11 changes, but in that year there were 15 alterations at the Bank of England. In one respect there is a considerable similarity to be observed between what has occurred both in France and in England. In both countries during the earlier portion of the period under notice there were far fewer alterations than during the later portion. But there is one curious difference in the course of business in the two countries to be noted. While during quite recent years the number of alterations in the rate charged by the Bank of England has tended to increase, the changes in the rate of the Bank of France have diminished in number. We will take the period from 1870 onward:—

BANK OF ENGLAND.		BANK OF FRANCE.	
Years.	No. of Changes in Rate.	Years.	No. of Changes in Rate.
1870 .....	10	1870 .....	4
1871 .....	10	1871 .....	2
1872 .....	14	1872 .....	1
1873 .....	24	1873 .....	4
1874 .....	13	1874 .....	2
1875 .....	12	1875 .....	—
1876 .....	5	1876 .....	1
1877 .....	7	1877 .....	1
1878 .....	10	1878 .....	1
Changes in rate ..... 105		Changes in rate ..... 16	

It is also a thing worth notice that though the average rate charged by the Bank of France, taking the whole time from 1844 onwards into consideration, has been somewhat higher than the rate charged by the Bank of England, the rates charged by the Bank of France have been lower than those of the Bank of England during the years of panic which have occurred in England

during the same period. Thus, to compare the rates in England and France during the years 1847, 1857, and 1866 :—

BANK OF ENGLAND.				BANK OF FRANCE.			
Year.		Rate of Discount.		Year.		Rate of Discount.	
		£	s. d.			£	s. d.
1847	.....	5	3 6	1847	.....	4	19 0
1857	.....	6	13 3	1857	.....	6	3 0
1866	.....	6	19 0	1866	.....	3	14 0

It is a remarkable thing that there should have been so great a difference in the rate of discount charged at these dates in two great centres of business activity situated so close to each other and connected by so many bonds of commercial intercourse. In the year 1878 a similar divergence took place, the rate of the Bank of England was £3 15s. 8d., of the Bank of France only £2 4s. 2d. for that year. It appears, however, that there has been on the whole of late years a tendency towards a greater correspondence in the rate of interest charged in both countries, and it is quite probable, now that France has resumed specie payments, that Paris will be likely again to become a great market for exchange operations, and that we may again see a great number of alterations occur in the rate of interest charged by the Bank of France.

The Bank of France, we must however remember, has had to pass through very great trials during recent years. Changes in the form of Government, revolutions, wars, and even hostile occupation, have all disturbed the even course of business in Paris and in France. The Bank of France has had to bear many trials of this description, and has met them all with great courage and prudence on the part of its governing body.

TABLE VIII.—MONTHLY AVERAGES OF RATE OF BANK OF FRANCE—1844 TO 1878.

1845.			1846.			1847.		
Average Rate of Year, £4 Os. 0d.		Rate of Year =100.	Average Rate of Year, £4 Os. 0d.		Rate of Year =100.	Average Rate of Year, £5 Os. 2d.		Rate of Year =100.
Jan.....	£ s. d.	100	Jan.....	£ s. d.	100	Jan.....	£ s. d.	90
Feb. ....	4 0 0	100	Feb. ....	4 0 0	100	Feb. ....	5 0 0	100
March ..	4 0 0	100	March ..	4 0 0	100	March ..	5 0 0	100
April ...	4 0 0	100	April ...	4 0 0	100	April ...	5 0 0	100
May ...	4 0 0	100	May ...	4 0 0	100	May ...	5 0 0	100
June ...	4 0 0	100	June ...	4 0 0	100	June ...	5 0 0	100
July ...	4 0 0	100	July ...	4 0 0	100	July ...	5 0 0	100
August. .	4 0 0	100	August. .	4 0 0	100	August. .	5 0 0	100
Sept. ...	4 0 0	100	Sept. ...	4 0 0	100	Sept. ...	5 0 0	100
October .	4 0 0	100	October .	4 0 0	100	October .	5 0 0	100
Nov. ....	4 0 0	100	Nov. ....	4 0 0	100	Nov. ....	5 0 0	100
Dec. ....	4 0 0	100	Dec. ....	4 0 0	100	Dec. ....	5 9 9	109

1848.			1849.			1850.		
Average Rate of Year, £4 Os. 0d.		Rate of Year =100.	Average Rate of Year, £4 Os. 0d.		Rate of Year =100.	Average Rate of Year, £4 Os. 0d.		Rate of Year =100.
Jan.....	£ s. d.	100	Jan.....	£ s. d.	100	Jan.....	£ s. d.	100
Feb. ....	4 0 0	100	Feb. ....	4 0 0	100	Feb. ....	4 0 0	100
March ..	4 0 0	100	March ..	4 0 0	100	March ..	4 0 0	100
April ...	4 0 0	100	April ...	4 0 0	100	April ...	4 0 0	100
May ...	4 0 0	100	May ...	4 0 0	100	May ...	4 0 0	100
June ...	4 0 0	100	June ...	4 0 0	100	June ...	4 0 0	100
July ...	4 0 0	100	July ...	4 0 0	100	July ...	4 0 0	100
August. .	4 0 0	100	August. .	4 0 0	100	August. .	4 0 0	100
Sept. ...	4 0 0	100	Sept. ...	4 0 0	100	Sept. ...	4 0 0	100
October .	4 0 0	100	October .	4 0 0	100	October .	4 0 0	100
Nov. ....	4 0 0	100	Nov. ....	4 0 0	100	Nov. ....	4 0 0	100
Dec. ....	4 0 0	100	Dec. ....	4 0 0	100	Dec. ....	4 0 0	100

1851.			1852.			1853.		
Average Rate of Year, £4 Os. 0d.		Rate of Year =100.	Average Rate of Year, £3 3s. 7d.		Rate of Year =100.	Average Rate of Year, £3 4s. 9d.		Rate of Year =100.
Jan.....	£ s. d.	100	Jan.....	£ s. d.	126	Jan.....	£ s. d.	92
Feb. ....	4 0 0	100	Feb. ....	4 0 0	126	Feb. ....	3 0 0	92
March ..	4 0 0	100	March ..	3 3 0	99	March ..	3 0 0	92
April ...	4 0 0	100	April ...	3 0 0	94	April ...	3 0 0	92
May ...	4 0 0	100	May ...	3 0 0	94	May ...	3 0 0	92
June ...	4 0 0	100	June ...	3 0 0	94	June ...	3 0 0	92
July ...	4 0 0	100	July ...	3 0 0	94	July ...	3 0 0	92
August. .	4 0 0	100	August. .	3 0 0	94	August. .	3 0 0	92
Sept. ...	4 0 0	100	Sept. ...	3 0 0	94	Sept. ...	3 0 0	92
October .	4 0 0	100	October .	3 0 0	94	October .	3 17 6	119
Nov. ....	4 0 0	100	Nov. ....	3 0 0	94	Nov. ....	4 0 0	123
Dec. ....	4 0 0	100	Dec. ....	3 0 0	94	Dec. ....	4 0 0	123

TABLE VIII. *Continued*—MONTHLY AVERAGES OF RATE OF  
BANK OF FRANCE.

1854.			1855.			1856.		
Average Rate of Year, £4 6s. 6d.		Rate of Year =100.	Average Rate of Year, £4 8s. 11d.		Rate of Year =100.	Average Rate of Year, £5 10s. 2d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 9 3	103	Feb. ...	4 0 0	90	Feb. ...	6 0 0	109
March..	5 0 0	116	March..	4 0 0	90	March..	6 0 0	109
April ...	5 0 0	116	April ...	4 0 0	90	April ...	5 0 0	91
May ...	4 8 9	102	May ...	4 0 0	90	May ...	5 0 0	91
June ...	4 0 0	92	June ...	4 0 0	90	June ...	5 0 0	91
July ...	4 0 0	92	July ...	4 0 0	90	July ...	5 0 0	91
August.	4 0 0	92	August.	4 0 0	90	August.	5 0 0	91
Sept. ...	4 0 0	92	Sept. ...	4 0 0	90	Sept. ...	5 1 9	92
October	4 0 0	92	October	5 7 3	121	October	6 0 0	109
Nov. ...	4 0 0	92	Nov. ...	6 0 0	155	Nov. ...	6 0 0	109
Dec. ...	4 0 0	92	Dec. ...	6 0 0	155	Dec. ...	6 0 0	109
1857.			1858.			1859.		
Average Rate of Year, £6 3s. 3d.		Rate of Year =100.	Average Rate of Year, £3 14s. 0d.		Rate of Year =100.	Average Rate of Year, £3 9s. 4d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	6 0 0	97	Feb. ...	5 0 0	135	Feb. ...	3 0 0	87
March..	6 0 0	97	March..	4 1 6	109	March..	3 0 0	87
April ...	6 0 0	97	April ...	4 0 0	108	April ...	3 0 0	87
May ...	6 0 0	97	May ...	4 0 0	108	May ...	3 19 6.	114
June ...	5 16 9	95	June ...	3 12 3	97	June ...	4 0 0	115
July ...	5 10 0	89	July ...	3 10 0	95	July ...	4 0 0	115
August.	5 10 0	89	August.	3 10 0	95	August.	3 12 6	104
Sept. ...	5 10 0	89	Sept. ...	3 6 9	90	Sept. ...	3 10 0	101
October	6 11 9	107	October	3 0 0	81	October	3 10 0	101
Nov. ...	8 5 0	134	Nov. ...	3 0 0	81	Nov. ...	3 10 0	101
Dec. ...	6 15 3	110	Dec. ...	3 0 0	81	Dec. ...	3 10 0	101
1860.			1861.			1862.		
Average Rate of Year, £3 12s. 7d.		Rate of Year =100.	Average Rate of Year, £5 11s. 1d.		Rate of Year =100.	Average Rate of Year, £3 15s. 1d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	3 10 0	96	Feb. ...	6 16 9	123	Feb. ...	4 18 6	131
March..	3 10 0	96	March..	7 0 0	126	March..	3 15 6	100
April ...	3 10 0	96	April ...	6 4 9	112	April ...	4 0 0	106
May ...	3 10 0	96	May ...	5 0 0	90	May ...	3 10 0	93
June ...	3 10 0	96	June ...	5 0 0	90	June ...	3 10 0	93
July ...	3 10 0	96	July ...	5 0 0	90	July ...	3 10 0	93
August.	3 10 0	96	August.	5 0 0	90	August.	3 10 0	93
Sept. ...	3 10 0	96	Sept. ...	4 19 9	90	Sept. ...	3 10 0	93
October	3 10 0	96	October	6 0 0	108	October	3 10 0	93
Nov. ...	4 0 9	111	Nov. ...	5 12 3	101	Nov. ...	3 16 9	102
Dec. ...	4 10 0	124	Dec. ...	5 11 1	100	Dec. ...	4 0 0	106



TABLE VIII. *Continued*—MONTHLY AVERAGES OF RATE OF BANK OF FRANCE.

1863.			1864.			1865.		
Average Rate of Year, £4 13s. 1d.		Rate of Year =100.	Average Rate of Year, £6 10s. 7d.		Rate of Year =100.	Average Rate of Year, £3 13s. 11s.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 12 0	99	Feb. ...	7 0 0	107	Feb. ...	4 10 0	122
March ..	5 0 0	108	March ..	7 0 0	107	March ..	3 16 6	103
April ...	4 14 0	101	April ...	6 18 0	106	April ...	3 14 3	100
May ...	4 0 0	86	May ...	6 0 0	92	May ...	3 10 0	94
June ...	3 13 6	79	June ...	7 2 6	109	June ...	3 10 0	94
July ...	3 15 3	81	July ...	6 0 0	92	July ...	3 0 0	81
August.	4 0 0	86	August.	6 0 0	92	August.	3 0 0	81
Sept. ...	4 0 0	86	Sept. ...	6 12 0	101	Sept. ...	3 0 0	81
October	4 16 3	103	October	7 14 6	118	October	4 12 6	125
Nov. ...	6 6 0	135	Nov. ...	6 16 0	104	Nov. ...	4 14 0	127
Dec. ...	7 0 0	150	Dec. ...	5 4 0	79	Dec. ...	4 0 0	108

1866.			1867.			1868.		
Average Rate of Year, £3 13s. 6d.		Rate of Year =100.	Average Rate of Year, £2 14s. 2d.		Rate of Year =100.	Average Rate of Year, £2 10s. 0d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 19 3	135	Feb. ...	3 0 0	111	Feb. ...	2 10 0	100
March ..	4 5 9	116	March ..	3 0 0	111	March ..	2 10 0	100
April ...	3 18 6	107	April ...	3 0 0	111	April ...	2 10 0	100
May ...	3 10 0	95	May ...	3 0 0	111	May ...	2 10 0	100
June ...	3 17 9	106	June ...	3 0 0	111	June ...	2 10 0	100
July ...	4 0 0	109	July ...	2 10 0	92	July ...	2 10 0	100
August.	3 19 9	109	August.	2 10 0	92	August.	2 10 0	100
Sept. ...	3 11 0	96	Sept. ...	2 10 0	92	Sept. ...	2 10 0	100
October	3 0 0	82	October	2 10 0	92	October	2 10 0	100
Nov. ...	3 0 0	82	Nov. ...	2 10 0	92	Nov. ...	2 10 0	100
Dec. ...	3 0 0	82	Dec. ...	2 10 0	92	Dec. ...	2 10 0	100

1869.			1870.			1871.		
Average Rate of Year, £2 10s. 0d.		Rate of Year =100.	Average Rate of Year, £3 19s. 8d.		Rate of Year =100.	Average Rate of Year, £5 14s. 3d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	2 10 0	100	Feb. ...	2 10 0	63	Feb. ...	6 0 0	105
March ..	2 10 0	100	March ..	2 10 0	63	March ..	6 0 0	105
April ...	2 10 0	100	April ...	2 10 0	63	April ...	6 0 0	105
May ...	2 10 0	100	May ...	2 10 0	63	May ...	6 0 0	105
June ...	2 10 0	100	June ...	2 10 0	63	June ...	6 0 0	105
July ...	2 10 0	100	July ...	3 3 6	80	July ...	5 15 0	100
August.	2 10 0	100	August.	5 16 3	146	August.	5 0 0	87
Sept. ...	2 10 0	100	Sept. ...	6 0 0	150	Sept. ...	5 0 0	87
October	2 10 0	100	October	6 0 0	150	October	5 0 0	87
Nov. ...	2 10 0	100	Nov. ...	6 0 0	150	Nov. ...	5 16 3	102
Dec. ...	2 10 0	100	Dec. ...	6 0 0	150	Dec. ...	6 0 0	105

TABLE VIII. *Continued*—MONTHLY AVERAGES OF RATE OF BANK OF FRANCE.

1872.			1873.			1874.		
Average Rate of Year, £5 2s. 9d.		Rate of Year =100.	Average Rate of Year, £5 2s. 10d.		Rate of Year =100.	Average Rate of Year, £4 6s. 2d.		Rate of Year =100.
Jan.....	£ s. d.	117	Jan.....	£ s. d.	97	Jan.....	£ s. d.	116
Feb. ...	5 13 0	110	Feb. ...	5 0 0	97	Feb. ...	5 0 0	116
March..	5 0 0	97	March..	5 0 0	97	March..	4 13 9	109
April ...	5 0 0	97	April ...	5 0 0	97	April ...	4 10 0	105
May ...	5 0 0	97	May ...	5 0 0	97	May ...	4 10 0	105
June ...	5 0 0	97	June ...	5 0 0	97	June ...	4 0 0	93
July ...	5 0 0	97	July ...	5 0 0	97	July ...	4 0 0	93
August.	5 0 0	97	August.	5 0 0	97	August.	4 0 0	93
Sept. ...	5 0 0	97	Sept. ...	5 0 0	97	Sept. ...	4 0 0	93
October	5 0 0	97	October	5 13 0	110	October	4 0 0	93
Nov. ...	5 0 0	97	Nov. ...	6 0 9	117	Nov. ...	4 0 0	93
Dec. ...	5 0 0	97	Dec. ...	5 0 0	97	Dec. ...	4 0 0	93
1875.			1876.			1877.		
Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £3 8s. 2d.		Rate of Year =100.	Average Rate of Year, £2 5s. 3d.		Rate of Year =100.
Jan.....	£ s. d.	100	Jan.....	£ s. d.	118	Jan.....	£ s. d.	133
Feb. ...	4 0 0	100	Feb. ...	4 0 0	118	Feb. ...	3 0 0	133
March..	4 0 0	100	March..	4 0 0	118	March..	3 0 0	133
April ...	4 0 0	100	April ...	4 0 0	118	April ...	2 2 9	94
May ...	4 0 0	100	May ...	3 18 0	115	May ...	2 0 0	88
June ...	4 0 0	100	June ...	3 0 0	88	June ...	2 0 0	88
July ...	4 0 0	100	July ...	3 0 0	88	July ...	2 0 0	88
August.	4 0 0	100	August.	3 0 0	88	August.	2 0 0	88
Sept. ...	4 0 0	100	Sept. ...	3 0 0	88	Sept. ...	2 0 0	88
October	4 0 0	100	October	3 0 0	88	October	2 0 0	88
Nov. ...	4 0 0	100	Nov. ...	3 0 0	88	Nov. ...	2 0 0	88
Dec. ...	4 0 0	100	Dec. ...	3 0 0	88	Dec. ...	2 0 0	88
1878.			1845-78.					
Average Rate of Year, £2 4s. 2d.		Rate of Year = 100.	Average Rate of 34 Years, £4 1s. 5d.		Rate of 34 Yrs. = 100.			
January .....	£ s. d.	91	January .....	£ s. d.	105			
February .....	2 0 0	91	February .....	4 4 5	103			
March .....	2 0 0	91	March .....	4 2 7	101			
April .....	2 0 0	91	April .....	3 18 11	97			
May .....	2 0 0	91	May .....	3 19 8	97			
June .....	2 0 0	91	June .....	3 17 2	94			
July .....	2 0 0	91	July .....	3 17 3	94			
August .....	2 0 0	91	August .....	3 17 11	95			
September .....	2 0 0	91	September .....	3 17 11	95			
October .....	2 10 6	115	October .....	4 3 7	102			
November .....	3 0 0	136	November .....	4 6 9	106			
December.....	3 0 0	136	December.....	4 4 11	104			

TABLE IX.—BANK OF FRANCE  
TABLE OF THE CHANGES IN THE RATE OF DISCOUNT CHARGED BY THE  
YEAR, SINCE THE 1ST SEPTEMBER, 1844 (the Year the Bank Act

Years.	Number of Changes.			2 %	2½ %	3 %	3½ %	4 %
	Rise.	Fall.	Total.	Days.	Days.	Days.	Days.	Days.
1844	...	...	...	...	...	...	...	117
1845	...	...	...	...	...	...	...	365
1846	...	...	...	...	...	...	...	365
1847	1	1	2	...	...	...	...	18
1848	...	...	...	...	...	...	...	366
1849	...	...	...	...	...	...	...	365
1850	...	...	...	...	...	...	...	365
1851	...	...	...	...	...	...	...	365
1852	...	1	1	...	...	803	...	63
1853	1	...	1	...	...	279	...	86
1854	1	1	2	...	...	...	...	253
1855	2	...	2	...	...	...	...	277
1856	1	1	2	...	...	...	...	...
1857	4	4	8	...	...	...	...	...
1858	...	4	4	...	...	99	105	112
1859	1	1	2	...	...	123	149	93
1860	1	...	1	...	...	...	317	...
1861	4	3	7	...	...	...	...	...
1862	1	3	4	...	...	...	224	104
1863	5	3	8	...	...	...	35	176
1864	4	7	11	...	...	...	...	...
1865	2	4	6	...	...	126	84	70
1866	2	5	7	...	...	123	85	108
1867	...	2	2	...	214	151	...	...
1868	...	...	...	...	366	...	...	...
1869	...	...	...	...	365	...	...	...
1870	4	...	4	...	199	...	3	9
1871	1	1	2	...	...	...	...	...
1872	...	1	1	...	...	...	...	...
1873	2	2	4	...	...	...	...	...
1874	...	2	2	...	...	...	...	210
1875	...	...	...	...	...	...	...	365
1876	...	1	1	...	...	219	...	147
1877	...	1	1	270	...	95	...	...
1878	1	...	1	289	...	76	...	...
	38	48	86	559	1,144	1,594	1,002	4,399

## RATE OF DISCOUNT, 1844-78.

BANK OF FRANCE, AND THE NUMBER OF DAYS AT EACH RATE IN EACH  
came into Operation in England), TO DECEMBER 31ST, 1878.

4½ %	5 %	5½ %	6 %	6½ %	7 %	7½ %	8 %	9 %	Total.	Years.
Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	
...	...	...	...	...	...	...	...	...	117	1844
...	...	...	...	...	...	...	...	...	365	1845
...	...	...	...	...	...	...	...	...	365	1846
...	347	...	...	...	...	...	...	...	365	1847
...	...	...	...	...	...	...	...	...	366	1848
...	...	...	...	...	...	...	...	...	365	1849
...	...	...	...	...	...	...	...	...	365	1850
...	...	...	...	...	...	...	...	...	365	1851
...	...	...	...	...	...	...	...	...	366	1852
...	...	...	...	...	...	...	...	...	365	1853
...	112	...	...	...	...	...	...	...	365	1854
...	14	...	74	...	...	...	...	...	365	1855
...	178	...	188	...	...	...	...	...	366	1856
...	2	109	188	8	12	21	9	16	365	1857
12	37	...	...	...	...	...	...	...	365	1858
...	...	...	...	...	...	...	...	...	365	1859
49	...	...	...	...	...	...	...	...	366	1860
2	229	11	58	...	65	...	...	...	365	1861
16	21	...	...	...	...	...	...	...	365	1862
14	85	...	6	...	49	...	...	...	365	1863
9	14	...	163	...	148	...	32	...	366	1864
40	45	...	...	...	...	...	...	...	365	1865
7	42	...	...	...	...	...	...	...	365	1866
...	...	...	...	...	...	...	...	...	365	1867
...	...	...	...	...	...	...	...	...	366	1868
...	...	...	...	...	...	...	...	...	365	1869
...	10	...	144	...	...	...	...	...	365	1870
...	106	...	259	...	...	...	...	...	365	1871
...	308	...	58	...	...	...	...	...	366	1872
...	321	...	32	...	12	...	...	...	365	1873
91	64	...	...	...	...	...	...	...	365	1874
...	...	...	...	...	...	...	...	...	365	1875
...	...	...	...	...	...	...	...	...	366	1876
...	...	...	...	...	...	...	...	...	365	1877
...	...	...	...	...	...	...	...	...	365	1878
240	1,935	120	1,170	8	286	21	41	16	12,535	

## CHAPTER X.

VARIATIONS IN THE RATE CHARGED BY THE  
BANK OF GERMANY, 1844 TO 1878.

THE two last chapters contained some account of the variations in the rate of interest charged by the Bank of England from 1844 to 1878, and by the Bank of France during the same period. It is desirable to complete this part of the investigation by a similar inquiry into the rates charged during the same time by the Bank of Germany. Strictly speaking, we ought to speak of the rates charged by the Bank of Prussia and by the Bank of Germany, for it was not till 1875 that the former institution merged into the latter one. As, however, it is the Bank of Germany which is now carrying on the business, we have placed the name of that bank at the head of this chapter. The same date and the same method exactly have been followed in constructing the tables which accompany this chapter as in those which were drawn up in the description of the variations charged by the Bank of England and the Bank of France, in order that the comparison made may follow precisely the same plan in all three cases, and enable the reader to see how far and to what extent the same causes have operated in all three countries.

The first Table, No. X., gives the average rate of discount charged, month by month, by the Bank of Germany during the period from 1845 to 1878; it also shows the proportion which the rate charged in each month bore to the average rate of the year. A summary table at page 109 shows the average monthly rates for the seventeen years, 1845-61, 1862-78; and for the whole period, 1845-78. Table No. XI. gives the number of changes of the rate in each year, and the total number of days at each rate in each year. A supplementary Table, No. XIII., shows the number of days at each rate, arranged from the lowest rate to the highest, and the number of days in each rate, arranged from the greatest number of days which each rate lasted to the smallest.

The Imperial Bank of Germany is, like the Bank of France, under the control of the State; it carries on a very considerable business in Berlin, and has also branches which form a network covering the whole of Germany. Including Berlin, there are 211 offices of the "Reichs-Bank." In this latter respect the business which the Bank of Germany carries on corresponds more closely with that of the Bank of France than with that of the Bank of England, and it is a curious though an entirely accidental coincidence that the number of variations in the rate of discount was exactly the same in the case of the Bank of France as in that of the Bank of Germany from 1844, and the close of the year 1877; there were eighty-five alterations in the rate recorded at each of these banks during those years, while the Bank of England altered its rate two hundred and fifty-four times during the same time; that is to say, nearly three times as often as either of the two other banks under consideration.

The year 1872 marks the date of the introduction of a gold standard into Germany. It could hardly have been expected that so colossal an operation, probably the largest of its kind which modern business has ever witnessed, could have ever been carried into effect without great disturbances of the money market in the

countries employing a gold currency. This doubtless accounts for much of the unsteadiness of our money market during the years 1872—1875, and for many of the alterations in the rate of discount charged at Berlin during the same period.

The business of banking is probably, on the whole, more developed in Germany than in France. There are many considerable banks in Hamburg, Frankfort, Bremen, and in many of the cities of North Germany, besides many carrying on business in Berlin. Hence the Bank of Germany finds more competition to deal with than the Bank of France.

The business carried on by the Bank of Germany appears to correspond more with that carried on by the Bank of France than with that of the Bank of England. Both the Banks of France and Germany have many branches, many more than the Bank of England; both of them have a large business in remitting sums of money from one part of their respective countries to another, and the bills which both of them receive in the way of their business are comparatively small in amount. The average amount of the inland bills dealt in by the Bank of Germany in 1877 was £69—for each bill. The average amount of the trade bills discounted at Paris by the Bank of France in 1877 was £32 7s. 6d. The average amount of the bills dealt in by the Bank of England is believed to be much larger than either of these sums.

7 The business of the Imperial Bank of Germany on current accounts (*Giro Verkehr*) has considerably increased during recent years. This business has attained an importance which could scarcely have been foreseen, and will, undoubtedly, increase still more if the custom of making payments by cheques, which now in Germany is only usual in Hamburg, becomes general throughout the country. The balances derived from this source averaged about £3,500,000 in 1876, £4,900,000 in 1877, and £5,500,000, in 1878. The Bank of Germany held on an average £25,000,000 in bullion in 1876, £26,000,000 in 1877, and £24,000,000 in 1878. The

“cover” held against the notes in circulation, consisting of bullion and notes of the Imperial Treasury, as required by paragraph 17 of the Bank Law, was about 81 per cent. of the liabilities under that head in 1877. This seems a high proportion with a rate of discount of about  $4\frac{1}{2}$  per cent. The proportion was 79 per cent. in 1878. Besides the note circulation, the other liabilities must be borne in mind, and the proportion of bullion held against the total of these, and the note circulation together, amounted to something like 60 per cent. in 1877, and 61 per cent. in 1878. This is a very considerable reserve, and it may assist us in estimating its relative importance to remember that the corresponding figures in the case of the Bank of England were 45 per cent. in 1877, and 42 per cent. in 1878. The Imperial Bank of Germany has to pay interest on a considerable part of the deposits it holds, and to divide a large portion of the profit it makes with the State. It was, however, able to pay its shareholders a return of  $6\frac{29}{100}$  per cent. on their capital in 1877, and  $6\frac{3}{10}$  per cent. in 1878. A further comparison between the details of the operations of the Banks of England, Germany, and France is not required in this place. A sufficient outline is given for the purpose proposed—the comparison of the rate of discount ruling in the three countries under consideration, as shown in the returns of the principal banks in the same.



TABLE X.—MONTHLY AVERAGES OF RATE OF BANK OF GERMANY—1844 TO 1878.

1845.			1846.			1847.		
Average Rate of Year, £4 7s. 0d.		Rate of Year =100.	Average Rate of Year, £4 13s. 7d.		Rate of Year =100.	Average Rate of Year, £4 16s. 10d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 10 0	104	Feb. ...	5 0 0	107	Feb. ...	5 0 0	103
March..	4 7 9	101	March..	4 2 9	88	March..	5 0 0	103
April ...	4 0 0	92	April ...	4 0 0	85	April ...	5 0 0	103
May ...	4 0 0	92	May ...	4 0 0	85	May ...	5 0 0	103
June ...	4 0 0	92	June ...	4 0 0	85	June ...	5 0 0	103
July ...	4 0 0	92	July ...	5 0 0	107	July ...	5 0 0	103
August.	4 0 0	92	August.	5 0 0	107	August.	5 0 0	103
Sept. ...	4 0 0	92	Sept. ...	5 0 0	107	Sept. ...	4 10 0	93
October	4 16 6	111	October	5 0 0	107	October	4 10 0	93
Nov. ...	5 0 0	115	Nov. ...	5 0 0	107	Nov. ...	4 10 0	93
Dec. ...	5 0 0	115	Dec. ...	5 0 0	107	Dec. ...	4 10 0	93

1848.			1849.			1850.		
Average Rate of Year, £4 13s. 3d.		Rate of Year =100.	Average Rate of Year, £4 0s. 10d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 10 0	97	Feb. ...	4 10 0	111	Feb. ...	4 0 0	100
March..	4 10 0	97	March..	4 0 0	99	March..	4 0 0	100
April ...	4 13 0	100	April ...	4 0 0	99	April ...	4 0 0	100
May ...	5 0 0	107	May ...	4 0 0	99	May ...	4 0 0	100
June ...	5 0 0	107	June ...	4 0 0	99	June ...	4 0 0	100
July ...	4 16 6	103	July ...	4 0 0	99	July ...	4 0 0	100
August.	4 10 0	97	August.	4 0 0	99	August.	4 0 0	100
Sept. ...	4 10 0	97	Sept. ...	4 0 0	99	Sept. ...	4 0 0	100
October	4 10 0	97	October	4 0 0	99	October	4 0 0	100
Nov. ...	4 10 0	97	Nov. ...	4 0 0	99	Nov. ...	4 0 0	100
Dec. ...	4 10 0	97	Dec. ...	4 0 0	99	Dec. ...	4 0 0	100

1851.			1852.			1853.		
Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £4 5s. 0d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 0 0	100	Feb. ...	4 0 0	100	Feb. ...	4 0 0	100
March..	4 0 0	100	March..	4 0 0	100	March..	4 0 0	100
April ...	4 0 0	100	April ...	4 0 0	100	April ...	4 0 0	100
May ...	4 0 0	100	May ...	4 0 0	100	May ...	4 0 0	100
June ...	4 0 0	100	June ...	4 0 0	100	June ...	4 0 0	100
July ...	4 0 0	100	July ...	4 0 0	100	July ...	4 0 0	100
August.	4 0 0	100	August.	4 0 0	100	August.	4 0 0	100
Sept. ...	4 0 0	100	Sept. ...	4 0 0	100	Sept. ...	4 0 0	100
October	4 0 0	100	October	4 0 0	100	October	5 0 0	100
Nov. ...	4 0 0	100	Nov. ...	4 0 0	100	Nov. ...	5 0 0	100
Dec. ...	4 0 0	100	Dec. ...	4 0 0	100	Dec. ...	5 0 0	100

TABLE X. *Continued*—MONTHLY AVERAGES OF RATE OF BANK OF GERMANY.

1854.			1855.			1856.		
Average Rate of Year, £4 7s. 5d.		Rate of Year =100.	Average Rate of Year, £4 1s. 5d.		Rate of Year =100.	Average Rate of Year, £4 18s. 10d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ....	5 0 0	114	Feb. ....	4 0 0	98	Feb. ....	4 19 6	101
March ..	5 0 0	114	March ..	4 0 0	98	March ..	5 0 0	101
April ...	5 0 0	114	April ...	4 0 0	98	April ...	5 0 0	101
May ...	4 8 9	101	May ...	4 0 0	98	May ...	4 4 9	86
June ...	4 0 0	91	June ...	4 0 0	98	June ...	4 0 0	81
July ...	4 0 0	91	July ...	4 0 0	98	July ...	4 0 0	81
August.	4 0 0	91	August.	4 0 0	98	August.	4 0 0	81
Sept. ...	4 0 0	91	Sept. ...	4 0 0	98	Sept. ...	5 1 9	102
October	4 0 0	91	October	4 0 0	98	October	6 0 0	121
Nov. ...	4 0 0	91	Nov. ...	4 6 9	106	Nov. ...	6 0 0	121
Dec. ...	4 0 0	91	Dec. ...	4 10 0	110	Dec. ...	6 0 0	121
1857.			1858.			1859.		
Average Rate of Year, £5 15s. 7d.		Rate of Year =100.	Average Rate of Year, £4 2s. 7d.		Rate of Year =100.	Average Rate of Year, £4 4s. 3d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	6 0 0	104	Feb. ...	5 14 0	138	Feb. ...	4 0 0	95
March ..	5 7 9	93	March ..	3 14 9	90	March ..	4 0 0	95
April ...	5 0 0	86	April ...	4 0 0	97	April ...	4 0 0	95
May ...	5 0 0	86	May ...	4 0 0	97	May ...	4 18 6	117
June ...	5 0 0	86	June ...	4 0 0	97	June ...	5 0 0	119
July ...	5 0 0	86	July ...	4 0 0	97	July ...	4 12 0	109
August.	5 6 3	92	August.	4 0 0	97	August.	4 0 0	95
Sept. ...	5 12 0	97	Sept. ...	4 0 0	97	Sept. ...	4 0 0	95
October	6 11 6	114	October	4 0 0	97	October	4 0 0	95
Nov. ...	7 3 3	124	Nov. ...	4 0 0	97	Nov. ...	4 0 0	95
Dec. ...	7 6 3	127	Dec. ...	4 2 9	100	Dec. ...	4 0 0	95
1860.			1861.			1862.		
Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ...	4 0 0	100	Feb. ...	4 0 0	100	Feb. ...	4 0 0	100
March ..	4 0 0	100	March ..	4 0 0	100	March ..	4 0 0	100
April ...	4 0 0	100	April ...	4 0 0	100	April ...	4 0 0	100
May ...	4 0 0	100	May ...	4 0 0	100	May ...	4 0 0	100
June ...	4 0 0	100	June ...	4 0 0	100	June ...	4 0 0	100
July ...	4 0 0	100	July ...	4 0 0	100	July ...	4 0 0	100
August.	4 0 0	100	August.	4 0 0	100	August.	4 0 0	100
Sept. ...	4 0 0	100	Sept. ...	4 0 0	100	Sept. ...	4 0 0	100
October	4 0 0	100	October	4 0 0	100	October	4 0 0	100
Nov. ...	4 0 0	100	Nov. ...	4 0 0	100	Nov. ...	4 0 0	100
Dec. ...	4 0 0	100	Dec. ...	4 0 0	100	Dec. ...	4 0 0	100

TABLE X. Continued.—MONTHLY AVERAGES OF RATE OF BANK OF GERMANY.

1863.			1864.			1865.		
Average Rate of Year, £4 1s. 6d.		Rate of Year =100.	Average Rate of Year, £5 6s. 5d.		Rate of Year =100.	Average Rate of Year, £4 18s. 11d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ....	4 0 0	98	Feb. ....	4 10 0	85	Feb. ....	5 11 0	113
March ..	4 0 0	98	March ..	4 10 0	85	March ..	4 5 3	86
April ...	4 0 0	98	April ...	4 10 0	85	April ...	4 0 0	81
May ...	4 0 0	98	May ...	5 0 9	95	May ...	4 0 0	81
June ...	4 0 0	98	June ...	5 0 0	94	June ...	4 0 0	81
July ...	4 0 0	98	July ...	5 0 0	94	July ...	4 0 0	81
August.	4 0 0	98	August.	5 0 0	94	August.	4 0 0	81
Sept. ....	4 0 0	98	Sept. ....	5 13 0	106	Sept. ....	4 16 6	97
October	4 0 0	98	October	6 18 3	130	October	6 14 0	135
Nov. ....	4 7 9	108	Nov. ....	7 0 0	132	Nov. ....	7 0 0	141
Dec. ....	4 10 0	100	Dec. ....	6 5 6	118	Dec. ....	7 0 0	141
1866.			1867.			1868.		
Average Rate of Year, £6 4s. 5d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.	Average Rate of Year, £4 0s. 0d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ....	7 0 0	112	Feb. ....	4 0 0	100	Feb. ....	4 0 0	100
March ..	6 4 9	100	March ..	4 0 0	100	March ..	4 0 0	100
April ...	6 0 0	96	April ...	4 0 0	100	April ...	4 0 0	100
May ...	6 0 0	96	May ...	4 0 0	100	May ...	4 0 0	100
June ...	8 6 3	133	June ...	4 0 0	100	June ...	4 0 0	100
July ...	9 0 0	145	July ...	4 0 0	100	July ...	4 0 0	100
August.	7 19 9	128	August.	4 0 0	100	August.	4 0 0	100
Sept. ....	5 5 9	85	Sept. ....	4 0 0	100	Sept. ....	4 0 0	100
October	5 0 0	80	October	4 0 0	100	October	4 0 0	100
Nov. ....	5 1 3	81	Nov. ....	4 0 0	100	Nov. ....	4 0 0	100
Dec. ....	4 10 0	72	Dec. ....	4 0 0	100	Dec. ....	4 0 0	100
Dec. ....	4 5 9	69	Dec. ....	4 0 0	100	Dec. ....	4 0 0	100
1869.			1870.			1871.		
Average Rate of Year, £4 4s. 11d.		Rate of Year =100.	Average Rate of Year, £4 17s. 7d.		Rate of Year =100.	Average Rate of Year, £4 2s. 9d.		Rate of Year =100.
Jan.....	£ s. d.		Jan.....	£ s. d.		Jan.....	£ s. d.	
Feb. ....	4 0 0	94	Feb. ....	5 0 0	102	Feb. ....	5 0 0	121
March ..	4 0 0	94	March ..	4 2 6	84	Feb. ....	5 9 3	108
April ...	4 0 0	94	April ...	4 0 0	82	March ..	4 3 6	101
May ...	4 0 0	94	May ...	4 0 0	82	April ...	4 0 0	97
June ...	4 0 0	94	June ...	4 0 0	82	May ...	4 0 0	97
July ...	4 0 0	94	July ...	4 0 0	82	June ...	4 0 0	97
August.	4 0 0	94	August.	5 19 6	122	July ...	4 0 0	97
Sept. ....	4 0 0	94	Sept. ....	7 7 3	151	August.	4 0 0	97
October	4 0 0	94	Oct. ....	5 1 9	104	Sept. ....	4 0 0	97
Nov. ....	4 19 3	117	October	5 0 0	102	October	4 0 0	97
Dec. ....	5 0 0	118	Nov. ....	5 0 0	102	Nov. ....	4 0 0	97
Dec. ....	5 0 0	118	Dec. ....	5 0 0	102	Dec. ....	4 0 0	97

TABLE X. *Continued*—MONTHLY AVERAGES OF RATE OF BANK OF GERMANY.

1872.			1873.			1874.		
Average Rate of Year, £4 5s. 8d.		Rate of Year =100.	Average Rate of Year, £4 19s. 4d.		Rate of Year =100.	Average Rate of Year, £4 7s. 8d.		Rate of Year =100.
Jan.....	£ s. d.	93	Jan.....	£ s. d.	99	Jan.....	£ s. d.	102
Feb. ...	4 0 0	93	Feb. ...	4 18 3	77	Feb. ...	4 9 3	91
March...	4 0 0	93	March...	4 0 0	81	March...	4 0 0	91
April ...	4 0 0	93	April ...	5 0 0	101	April ...	4 0 0	91
May ...	4 0 0	93	May ...	6 0 3	121	May ...	4 0 0	91
June ...	4 0 0	93	June ...	6 0 0	121	June ...	4 0 0	91
July ...	4 0 0	93	July ...	6 0 3	121	July ...	4 0 0	91
August..	4 0 0	93	August..	4 14 3	95	August..	4 0 0	91
Sept. ...	4 8 0	103	Sept. ...	4 10 0	91	Sept. ...	4 0 0	91
October	5 0 0	117	October	4 13 0	94	October	4 19 9	114
Nov. ...	5 0 0	117	Nov. ...	5 0 0	101	Nov. ...	5 3 0	117
Dec. ...	5 0 0	117	Dec. ...	5 0 0	101	Dec. ...	6 0 0	137
1875.			1876.			1877.		
Average Rate of Year, £4 13s. 7d.		Rate of Year =100.	Average Rate of Year, £4 3s. 3d.		Rate of Year =100.	Average Rate of Year, £4 8s. 7d.		Rate of Year =100.
Jan.....	£ s. d.	113	Jan.....	£ s. d.	135	Jan.....	£ s. d.	94
Feb. ....	5 5 9	85	Feb. ....	3 18 9	95	Feb. ...	4 0 0	90
March..	4 0 0	85	March..	4 0 0	96	March..	4 0 0	90
April ...	4 0 0	85	April ...	4 0 0	96	April ...	4 0 0	90
May ...	4 0 0	85	May ...	3 17 3	93	May ...	4 14 6	106
June ...	4 0 0	85	June ...	3 10 0	84	June ...	4 9 3	101
July ...	4 13 3	100	July ...	3 17 9	93	July ...	4 0 0	90
August..	5 0 0	107	August..	4 0 0	96	August..	4 0 0	90
Sept. ...	5 3 0	110	Sept. ...	4 0 0	96	Sept. ...	4 10 6	102
October	6 0 0	128	October	4 3 6	100	October	5 11 0	126
Nov. ...	5 1 0	108	Nov. ...	4 10 0	108	Nov. ...	5 2 6	116
Dec. ...	5 0 0	107	Dec. ...	4 10 0	108	Dec. ...	4 12 6	104
1878.			1845-78.					
Average Rate of Year, £4 6s. 9d.		Rate of Year =100.	Average Rate of 34 Years, £4 8s. 10d.		Rate of 34 Yrs. =100.			
January .....	£ s. d.	102	January .....	£ s. d.	104			
February .....	4 0 0	92	February .....	4 6 6	97			
March .....	4 0 0	92	March .....	4 14 10	107			
April .....	4 0 0	92	April .....	4 14 11	107			
May .....	4 0 0	92	May .....	4 7 5	98			
June .....	4 0 0	92	June .....	4 7 0	98			
July .....	4 0 0	92	July .....	4 8 2	99			
August .....	4 3 0	96	August .....	4 6 7	97			
September .....	5 0 0	115	September .....	4 7 6	98			
October .....	5 0 0	115	October .....	4 14 5	106			
November .....	5 0 0	115	November .....	4 14 9	107			
December.....	4 15 3	109	December.....	4 14 4	106			

102 *Changes in Rate of Bank of Germany, 1844-1878.*

TABLE XI.—TABLE OF THE CHANGES IN THE RATE OF DISCOUNT CHARGED BY THE BANK OF GERMANY, AND THE NUMBER OF DAYS AT EACH RATE IN EACH YEAR, SINCE THE 1ST SEPTEMBER, 1844 (the Year the Bank Act came into Operation in England), to DECEMBER 31ST, 1878.

Years.	No. of Changes.			3½ %	4 %	4½ %	5 %	5½ %	6 %	6½ %	7 %	7½ %	8 %	9 %	Total
	Rise.	Fall.	Total	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
1844	1	...	1	...	41	76	...	...	...	...	...	...	...	...	117
1845	1	1	2	...	204	78	83	...	...	...	...	...	...	...	365
1846	1	1	2	...	121	...	244	...	...	...	...	...	...	...	365
1847	...	1	1	...	...	122	243	...	...	...	...	...	...	...	365
1848	1	1	2	...	...	256	110	...	...	...	...	...	...	...	366
1849	...	1	1	...	314	51	...	...	...	...	...	...	...	...	365
1850	...	...	...	...	365	...	...	...	...	...	...	...	...	...	365
1851	...	...	...	...	365	...	...	...	...	...	...	...	...	...	365
1852	...	...	...	...	366	...	...	...	...	...	...	...	...	...	366
1853	1	...	1	...	273	...	92	...	...	...	...	...	...	...	365
1854	...	1	1	...	234	...	131	...	...	...	...	...	...	...	365
1855	1	...	1	...	310	55	...	...	...	...	...	...	...	...	365
1856	3	1	4	...	121	7	138	...	100	...	...	...	...	...	366
1857	4	2	6	...	...	...	162	32	82	45	...	44	...	...	365
1858	1	4	5	...	330	...	19	11	...	5	...	...	...	...	365
1859	1	1	2	...	293	...	72	...	...	...	...	...	...	...	365
1860	...	...	...	...	366	...	...	...	...	...	...	...	...	...	366
1861	...	...	...	...	365	...	...	...	...	...	...	...	...	...	365
1862	...	...	...	...	365	...	...	...	...	...	...	...	...	...	365
1863	1	...	1	...	307	58	...	...	...	...	...	...	...	...	365
1864	3	1	4	...	...	124	128	...	54	...	60	...	...	...	366
1865	3	2	5	...	198	...	64	...	21	...	82	...	...	...	365
1866	1	7	8	...	18	45	87	...	79	...	68	...	5	63	365
1867	...	...	...	...	365	...	...	...	...	...	...	...	...	...	365
1868	...	...	...	...	366	...	...	...	...	...	...	...	...	...	366
1869	1	...	1	...	277	...	88	...	...	...	...	...	...	...	365
1870	2	3	5	...	150	...	163	...	20	...	...	...	32	...	365
1871	...	2	2	...	300	14	51	...	...	...	...	...	...	...	365
1872	1	...	1	...	260	...	106	...	...	...	...	...	...	...	366
1873	3	4	7	...	53	98	128	...	86	...	...	...	...	...	365
1874	2	2	4	...	257	14	56	...	38	...	...	...	...	...	365
1875	2	3	5	...	168	...	131	...	66	...	...	...	...	...	365
1876	3	3	6	54	210	67	19	...	16	...	...	...	...	...	366
1877	3	4	7	...	214	33	78	40	...	...	...	...	...	...	365
1878	1	2	3	...	220	41	104	...	...	...	...	...	...	...	365
	41	47	88	54	7,796	1,139	2,497	83	562	50	210	44	37	63	12,535

## CHAPTER XI.

SOME REMARKS ON THE RATE OF DISCOUNT OF  
THE BANKS OF ENGLAND, FRANCE, AND  
GERMANY.

A REVIEW of some of the more important points of similarity and contrast in the operations and the rate of discount of the three banks of England, France, and Germany, will not be out of place here.

In one respect there is a difference between the rate charged at the Bank of Germany and those charged at the other two banks between the years 1844 and 1878, and that is in the minimum rate of discount charged. Both the Bank of England and the Bank of France occasionally lowered their rates below 3 per cent. in the course of those years. During the period under review the rate charged by the Bank of England was as the rates named below :—

BANK OF ENGLAND, 1844 TO 1878.		Days.
2 per cent. for	.....	1,447
2½       "	.....	28
2½       "	.....	1,870
		<u>3,345</u>

That is to say, for more than one-fourth of the whole time at these low rates. Though the average rate charged by the Bank of France was not quite so low as that charged by the Bank of England, it has sometimes

charged less than 3 per cent. for a considerable period. The rates in the time under our notice were as follows :—

BANK OF FRANCE, 1844 TO 1878.		Days.
2 per cent. for	.....	559
2½     ,,	.....	1,144
		<u>1,703</u>

Thus, in France, extremely low rates only prevailed for less than half the time that they did in England, but still in France the time which rates of 2 and 2½ per cent. lasted was nearly one-eighth of the whole, a far from unimportant fraction. While, however, extremely low rates have thus prevailed for a considerable time in England, and for a long period, though not equally long, in France, the rate at Berlin never once dropped so low as 3 per cent., and was at 3½ per cent. for 54 days only during the years under our immediate notice. The rate was, however, fixed at 3 per cent. on March 21st, 1879, a point which had never been previously quoted. In one respect there is a similarity observable between the rate charged at Paris and at Berlin. In both cases the greatest number of days is recorded when the rate stood at 4 per cent., and in both cases also the next largest number to 4 per cent. was 5 per cent.

The particulars are as follows :—

BANK OF FRANCE, 1844 TO 1878.		Days.
4 per cent. for	.....	4,399
5     ,,	.....	1,935
		<u>6,334</u>

BANK OF GERMANY, 1844 TO 1878.		Days.
4 per cent. for	.....	7,796
5     ,,	.....	2,497
		<u>10,293</u>

The corresponding figures in England were :—

BANK OF ENGLAND, 1844 TO 1878.		Days.
4 per cent. for	.....	1,314
5     ,,	.....	1,210
		<u>2,524</u>

It hence appears that these comparatively high rates were charged for the longest time in Germany; the next longest in France; and for the shortest time in England. But if the rate never fell below  $3\frac{1}{2}$  per cent. in Berlin between 1844 and 1878, it never rose above 9 per cent., and, indeed, stood at that high point for 63 days only during the period under consideration, that is to say for a very inconsiderable fraction of the whole time. The average of the rate, however, charged in Berlin was higher than at London or at Paris. But the rate charged at Berlin was, though slightly, yet on the whole, the highest of the three banks; for if there were but comparatively few days at which extremely high rates of interest were charged, the length of time during which 5 per cent. and 4 per cent. lasted at Berlin has caused the average rate to be comparatively high. For the remaining variations in the rate we must refer our readers to the summary table at the end of this chapter, in which all the variations of the rate at each of the three banks are given.

There have been at Berlin as well as at Paris some years in which the rate of discount never varied at all, and there has been one year, though but one, at the Bank of England in which a similar occurrence took place. The particulars are as follows :—

YEARS IN WHICH NO CHANGE TOOK PLACE IN THE RATE OF  
DISCOUNT, 1844 TO 1878.

Bank of England.	Bank of France.	Bank of Germany.
1851 .....	1844 .....	1850
— .....	1845 .....	1851
— .....	1846 .....	1852
— .....	1848 .....	1860
— .....	1849 .....	1861
— .....	1850 .....	1862
— .....	1851 .....	1867
— .....	1868 .....	1868
— .....	1869 .....	—
— .....	1875 .....	—

It will be observed from this table that there was one year alone in which all the three banks coincided in making no alterations in the rate charged, and that was in 1851. In one particular, and that not an unim-



portant one, there is a correspondence in the transactions of the Bank of England and the Bank of Germany, and that is in the great number of the variations in the rate of discount during recent years. It will assist us to compare the number of variations in the years from 1870 to 1878 :—

VARIATIONS IN THE RATES OF DISCOUNT, 1870 TO 1878.

Years.	Bank of England. Number of Variations in Rate.	Bank of France. Number of Variations in Rate.	Bank of Germany. Number of Variations in Rate.
1870 .....	10 .....	4 .....	5 .....
1871 .....	10 .....	2 .....	2 .....
1872 .....	14 .....	1 .....	1 .....
1873 .....	24 .....	4 .....	7 .....
1874 .....	13 .....	2 .....	4 .....
1875 .....	12 .....	...	5 .....
1876 .....	5 .....	1 .....	6 .....
1877 .....	7 .....	1 .....	7 .....
1878 .....	10 .....	1 .....	3 .....
	105 .....	16 .....	40 .....
Total amount of varia- } tions from 1844 to 1878 }	264 .....	86 .....	88 .....

The rate charged by the Bank of France remained but little altered during this particular period. Still, on examining the general table of variations, the same rule holds good throughout, that there has been of recent years a far greater number of variations in the rate of discount charged.

This tendency to greater variations in intensity, and to a greater number of fluctuations, must be expected to increase as commerce extends, and as business transactions not only become more numerous, but more closely connected. As is well known, the amount of foreign money employed in the London money market increased much during recent years, though, after the failure of the City of Glasgow Bank, it has distinctly diminished. When the London rate is lower than that ruling on the Continent, there is, of course, less inducement for English bills to be held in foreign countries. Hitherto, though enormous sums of English capital have been sent about to almost every country in the world, it has rather been directed to more fixed and

permanent investments than to employment in the money markets of foreign cities and capitals. The bonds of foreign Governments, of foreign railways, investments in industrial undertakings of almost every class, have all been largely supported by English capital. There is no need to make any detailed statement on this point, as the fact is so well known. But while the bonds of many foreign Governments are perfectly familiar to the English investor, he has scarcely any knowledge whatever of, or any experience in transactions in foreign bills. Hence, there are few, it almost might be said there are hardly any, foreign bills held in England; but the reverse of this is the case on the money markets of the Continent of Europe, where English bills are not uncommonly held.

These bills can be forwarded to this country for collection in case their holders want the money, or the amount represented by them may be reinvested in fresh bills when the holders desire it. They provide thus a most convenient reserve for those who hold them. It has been the feeling of confidence that first-class English bills would be paid in gold which has given them their position. The bonds of foreign Governments may be said to hold much the same place in England for these purposes that commercial bills on England do abroad, and often serve the purpose of making a remittance. Thus during the autumn and winter of 1877 a very large quantity of foreign bonds, such as Russian and American bonds—particularly American Funded Loan—were sold by holders in this country and remitted to the Continent and to America. This circumstance doubtless tended to check the demand for gold for export which would probably otherwise have arisen. In this instance, the holding these bonds in this country has been a service to us by preventing a drain on our bullion reserves which might have been very inconvenient. But it must be remembered that the current might equally, had circumstances favoured it, have turned in the other direction. And had the value of money risen on the principal money markets of Europe, or had

there been any great uncertainty about the prospects of foreign politics, a very considerable drain on our bullion reserve might have been made through the means of those English commercial and Treasury Bills held at that time so largely abroad.

As this practice extends, and as the communication between the money market of this country and those of the rest of Europe becomes closer, we must expect to see greater fluctuations occur in our own market. And the conclusion is obvious, that we are bound to take every precaution not only as to care in the details of business, but also by the formation and maintenance of a large bullion reserve in this country to meet the sudden demands which may, at any moment, be made on us. We reap a great advantage from the fact that our money market is the point where so many monetary transactions are carried on. We reap a great advantage also from the fact that commerce so largely centres in this country; but unless our position in the matter of reserves is a strong one, we shall be sure one day or another to find that the circumstances just referred to expose our business transactions to a great peril. We have attained our present position by unremitting exertion; the same exertion must be continued if we desire to maintain it.

The evidence of increasing closeness of connection between the principal money markets of Europe, which is given by the tables of variation in the rates of discount charged in them, has led to these remarks. We must be content to keep a larger supply of "unused money" ready to meet the demands which may be made at any moment, if we desire to see a greater uniformity in the rate of discount charged here, and a diminution of those fluctuations which have of recent years caused so many perturbations in our market.

*Average Rates, Banks of England, France, and Germany. 109*

**TABLE XII.—AVERAGE MONTHLY MINIMUM RATE OF DISCOUNT OF THE BANKS OF ENGLAND, FRANCE, AND GERMANY, FOR THE SEVENTEEN YEARS, 1845-1861, 1862-1878, AND FOR THE THIRTY-FOUR YEARS, 1845-1878.**

BANK OF ENGLAND.											
1845-61.				1862-78.				1845-78.			
Average Rate of 17 Years, £3 19s. 9d.		Rate of 17 Years =100.		Average Rate of 17 Years, £3 16s. 5d.		Rate of 17 Years =100.		Average Rate of 34 Years, £3 17s. 9d.		Rate of 34 Years =100.	
£	s. d.			£	s. d.			£	s. d.		
Jan.....	4 1 4	101		Jan.....	3 19 9	104		Jan.....	4 0 6	103	
Feb. ...	3 19 3	99		Feb. ...	3 10 9	92		Feb. ...	3 15 0	96	
March ..	4 0 4	100		March ..	3 10 0	91		March ..	3 15 2	96	
April ...	3 18 8	99		April ...	3 10 4	91		April ...	3 14 6	95	
May ...	4 1 6	101		May ...	4 0 8	105		May ...	4 1 1	104	
June ...	3 16 9	96		June ...	3 15 2	98		June ...	3 15 11	98	
July ...	3 14 10	94		July ...	3 11 10	94		July ...	3 13 4	94	
August.	3 12 11	92		August.	3 13 6	95		August.	3 13 2	94	
Sept. ...	3 12 6	91		Sept. ...	3 7 6	88		Sept. ...	3 10 0	90	
October	4 1 0	101		October	4 4 1	110		October	4 2 6	105	
Nov. ...	4 7 4	109		Nov. ...	4 10 1	118		Nov. ...	4 8 8	114	
Dec. ...	4 4 7	106		Dec. ...	4 4 4	110		Dec. ...	4 4 5	108	

BANK OF FRANCE.											
1845-61.				1862-78.				1845-78.			
Average Rate of 17 Years, £4 4s. 11d.		Rate of 17 Years =100.		Average Rate of 17 Years, £3 17s. 1d.		Rate of 17 Years =100.		Average Rate of 34 Years, £4 1s. 5d.		Rate of 34 Years =100.	
£	s. d.			£	s. d.			£	s. d.		
Jan.....	4 7 7	103		Jan.....	4 4 1	109		Jan.....	4 5 10	105	
Feb. ...	4 7 9	103		Feb. ...	4 1 2	105		Feb. ...	4 4 5	103	
March ..	4 5 9	101		March ..	3 19 4	103		March ..	4 2 7	101	
April ...	4 3 0	98		April ...	3 14 10	98		April ...	3 18 11	97	
May ...	4 3 5	98		May ...	3 15 11	99		May ...	3 19 8	97	
June ...	4 2 3	96		June ...	3 12 1	94		June ...	3 17 2	94	
July ...	4 1 9	96		July ...	3 12 10	96		July ...	3 17 3	94	
August.	4 1 4	95		August.	3 14 6	97		August.	3 17 11	95	
Sept. ...	4 1 1	95		Sept. ...	3 14 9	98		Sept. ...	3 17 11	95	
October	4 6 10	103		October	4 0 5	104		October	4 3 7	102	
Nov. ...	4 10 0	106		Nov. ...	4 3 6	108		Nov. ...	4 6 9	106	
Dec. ...	4 9 2	104		Dec. ...	4 0 9	106		Dec. ...	4 4 11	104	

BANK OF GERMANY.											
1845-61.				1862-78.				1845-78.			
Average Rate of 17 Years, £4 9s. 4d.		Rate of 17 Years =100.		Average Rate of 17 Years, £4 10s. 8d.		Rate of 17 Years =100.		Average Rate of 34 Years, £4 8s. 10d.		Rate of 34 Years =100.	
£	s. d.			£	s. d.			£	s. d.		
Jan.....	4 10 9	102		Jan.....	4 14 0	104		Jan.....	4 12 4	104	
Feb. ...	4 7 11	98		Feb. ...	4 5 1	94		Feb. ...	4 6 6	97	
March ..	4 6 6	97		March ..	4 3 2	91		March ..	4 14 10	107	
April ...	4 5 10	96		April ...	4 4 1	92		April ...	4 14 11	107	
May ...	4 5 5	95		May ...	4 9 4	98		May ...	4 7 5	98	
June ...	4 4 8	95		June ...	4 9 4	98		June ...	4 7 0	98	
July ...	4 5 2	95		July ...	4 11 2	100		July ...	4 8 2	99	
August.	4 4 5	94		August.	4 8 10	98		August.	4 6 7	97	
Sept. ...	4 5 6	95		Sept. ...	4 9 7	98		Sept. ...	4 7 6	98	
October	4 10 0	101		October	4 18 10	109		October	4 14 5	106	
Nov. ...	4 11 2	102		Nov. ...	4 18 5	108		Nov. ...	4 14 9	107	
Dec. ...	4 11 8	103		Dec. ...	4 17 7	108		Dec. ...	4 14 7	106	

110 *Days at Each Rate, Banks of England, France, & Germany.*

TABLE XIII.—BANKS OF ENGLAND, FRANCE, AND GERMANY. RATE OF DISCOUNT, 1844—1878. The Number of Days at each Rate, Arranged from the Highest Number to the Lowest.

BANK OF ENGLAND.			BANK OF FRANCE.			BANK OF GERMANY.		
Number of Days, 12,535.	Per Cent.	Number of Days =1,000.	Number of Days, 12,535.	Per Cent.	Number of Days =1,000.	Number of Days, 12,535.	Per Cent.	Number of Days =1,000.
2,773	3	221	4,399	4	351	7,796	4	622
1,870	2½	149	1,935	5	154	2,497	5	199
1,447	2	115	1,594	3	127	1,139	4½	91
1,314	4	105	1,170	6	93	562	6	45
1,272	3½	102	1,144	2½	92	210	7	17
1,210	5	97	1,002	3½	80	83	5½	7
725	6	58	559	2	45	63	9	5
577	7	46	286	7	23	54	3½	4
465	4½	37	240	4½	19	50	6½	4
268	8	21	120	5½	10	44	7½	3
259	5½	21	41	8	3	37	8	3
141	10	11	21	7½	2			
95	9	8	16	9	1			
91	6½	7	8	6½				
28	2½	2						
12,535		1,000	12,535		1,000	12,535		1,000

TABLE XIII. *Continued.*—BANKS OF ENGLAND, FRANCE, AND GERMANY. RATE OF DISCOUNT, 1844—1878. The Number of Days at each Rate, Arranged from the Lowest Rate to the Highest.

BANK OF ENGLAND.			BANK OF FRANCE.			BANK OF GERMANY.		
Per Cent.	Number of Days, 12,535.	Number of Days =1,000.	Per Cent.	Number of Days, 12,535.	Number of Days =1,000.	Per Cent.	Number of Days, 12,535.	Number of Days =1,000.
2	1,447	115	2	559	45	3½	54	4
2½	28	2	2½	1,144	92	4	7,796	622
3	1,870	149	3	1,594	127	4½	1,139	91
3½	2,773	221	3½	1,002	80	5	2,497	199
4	1,272	102	4	4,399	351	5½	83	7
4½	1,314	105	4½	240	19	6	562	45
5	465	37	5	1,935	154	6½	50	4
5½	1,210	97	5½	120	10	7	210	17
6	259	21	6	1,170	93	7½	44	3
6½	725	58	6½	8	...	8	37	3
7	91	7	7	286	23	9	63	5
7½	577	46	7½	21	2			
8	268	21	8	41	3			
9	95	8	9	16	1			
10	141	11						
	12,535	1,000		12,535	1,000		12,535	1,000

## CHAPTER XII.

BILLS DISCOUNTED AND TEMPORARY ADVANCES  
OF THE BANK OF ENGLAND.

THE manner in which the deposits held by the Bank are invested requires our attention.

The securities held by the Bank of England are divided in the usual weekly statements between the two heads of "Government" and "other" securities. It has not been thought necessary to make any analysis of the Government securities held by the Bank, as a large proportion of these securities, and, in particular, the amounts held in the circulation department, are so permanent in amount that no detailed statement appeared likely to be generally useful. The "other" securities are not included as a whole in the returns on which this analysis is based, but as a statement of their average amount would be of service in this investigation it has been supplied from the ordinary weekly accounts.

The total annual average amount of the "other" securities will be found in col. 18 of Table I.

The increase in the sums thus held is large, and in a general way proportionate to the increase in the deposits.

Mr. Thomson Hankey intimated, in his remarks on the working and management of the Bank of England, that, while the deposits of the Bank should be invested in

good banking securities, such as bills of exchange, loans for short periods on good securities, Government stocks, &c., the capital may be invested in securities of a more permanent description. "With regard to the investment of the capital, no part of this is required to be kept in reserve: all may be invested in interest-bearing securities, which should be of undoubted character, but not necessarily of the same readily convertible nature as that part which is held liable to recall of deposits."—*"Hankey on Banking,"* pp. 13 and 14.

The capital and accumulated and undivided profits of the Bank of England (the "rest") amount together to about  $17\frac{1}{2}$  millions. The bills discounted and temporary advances have been separated in the tabular statement from the remainder of the "other securities" to as late a date as the published returns permit. It will be observed that the portion of the "other securities" which does not consist of bills discounted or of temporary advances, the annual average of which is given in col. 20 of Table I., has fluctuated less in amount for the last sixteen or eighteen years than the "bills discounted" or the "temporary advances." Guided by Mr. Thomson Hankey's remarks, we may suppose the sums indicated in col. 20 to be invested in loans to corporations for local improvements, to railways on their debentures, perhaps in securities of Colonial Governments, and in other securities more or less of a permanent character. Mr. H. L. Holland, deputy-governor of the Bank, stated in 1865 that the amount of railway debentures held at that time was about 4 millions. The fluctuations in the amount of the "other" securities will be found marked in col. 19 of Table I.

We now proceed to consider the amount of bills discounted by the Bank of England. The yearly average of these is given in col. 22 of Table I. Col. 23 contains the proportion of the yearly average to that of 1844. The fluctuations in the amount of bills discounted is very considerable. The amount for 1868 was only about one-half that of 1866, and, curiously enough, was very nearly similar to the average of 1845. There are

larger fluctuations also shown in the weekly statements than those between these annual averages.

In 1866 the highest amount was about 16 millions, the lowest about 7 millions.

„ 1867	8	„	4½	„
„ 1868	7	„	4	„
„ 1869	7	„	4	„
„ 1870	10	„	5	„
„ 1871	11	„	4	„
„ 1872	9	„	4	„
„ 1873	12	„	4	„
„ 1874	6	„	3	„
„ 1875	6	„	2	„

There was a considerable increase in this branch of the business of the Bank between 1844 and 1875; but it will be observed that the average of the three years, 1845-47, rather exceeded the average of the three years 1873-75, and the whole amount, though large, can form but a very small part of the total amount of bills, both inland and foreign, in circulation. The probable amount of these bills in circulation, including foreign bills, was estimated by myself as being probably from 300 to 350 millions in 1873. The total now in circulation (in 1879) does not probably exceed, if it even reaches, the smaller of these figures. Mr. Newmarch's estimate in 1851 was that the corresponding amounts then were from 180 to 200 millions. The influence of the Bank of England in the discount market is considerable; but its influence in this direction would not appear to be so large as in some other portions of its business, since its discounts have not increased in the same proportion as the bills themselves, nor had the discounts of the Bank continued to increase during the later years in which the published returns enabled us to trace the business of the Bank in this particular. A large portion of the deposits, it must be remembered, have been invested in more permanent securities. The proportion of bills discounted to "other" securities is given in col. 24, and it will be observed that the proportion of the resources of the Bank placed in bills has rather diminished in recent years. The table shows that it is in times of difficulty and pressure that the discounters of bills have recourse to the Bank. In 1857 and 1866 the amounts are large. In ordinary times there are beyond doubt private houses,



as well as public companies, who do a larger business of this description than the Bank of England. In ordinary seasons the outside market is willing to accommodate its customers on slightly lower terms ; and, in discounting bills, those who do the business at the lowest figure are sure to have the preference.

The immediate wants of business are, perhaps, to be found most distinctly indicated among the temporary advances made by the Bank of England. No branch of business of the Bank appears to undergo greater fluctuations than this one, and in none are the influences of periods of pressure more distinctly marked. The amount for 1872 was exactly three times as much as that in 1844. The business done in 1852 was little more than a sixth part of that done twenty years later. The steady growth of this branch of the business is very remarkable during the last ten years of which the particulars can be given. The annual averages will be found in col. 25, of Table I., and the proportion of each year to the amount in 1844 is given in col. 26. The fluctuations from week to week are far greater than those between the yearly averages.

In 1866 the highest amount was about 8 millions, the lowest about 1 million.

" 1867	"	4	"	1	"
" 1868	"	4	"	1	"
" 1869	"	5	"	1	"
" 1870	"	9	"	2	"
" 1871	"	6	"	1	"
" 1872	"	10	"	2	"
" 1873	"	7	"	1	"
" 1874	"	8	"	2	"
" 1875	"	9	"	2	"

The extension of the scale on which business is now done is curiously marked by the increase in these fluctuations during recent years. The requirements of occasional borrowers were actually greater, and the yearly averages higher, in the years 1870 and 1872, than even in the panic year of 1866.

It is much to be regretted that the information as to the amounts of bills discounted, and of the temporary advances, which used to be given in the returns up to the close of 1875 is now no longer supplied.

Recently, in September, 1878, the Bank put in force a rule requiring a margin of 5 per cent. on the securities guaranteed by the Indian Government pledged with it. This rule is, however, one of long standing with the Bank. It is always enforced with regard to advances on Consols, and if it had not been invariably required hitherto in the case of securities of the Indian Government, this probably was because these securities have generally been at a premium. Thus a margin was provided. But when the securities stood at par, or a small discount, a margin is needed to cover the advances fully. The rate at which these advances have been made has been sometimes high—two per cent. above the rates charged for discounting bills. But what the Bank probably has said to those requiring these advances has been something like this: "We do not think your demand is one of a mercantile character; it is more like a Stock Exchange demand for short advances than a demand for legitimate trade purposes. If you bring us first-rate bills, we will discount them at our rate for bills, but we cannot place this demand of yours on the same footing."

After all, the Bank of England is, with respect to its private business, exactly in the same position as any other bank. It has only a certain definite sum which it can lend, and this it must husband, and not make advances which do not certainly return of themselves into money—as those made on good bills do—on the same terms as advances of the class we have been speaking of. The resources of the Bank are, doubtless, very large; but if it makes over-large advances on securities of a fixed character, it will experience the inconvenience of doing this just as any other bank would do. It cannot be said that the Bank is following a course otherwise than for the public interest in taking the line which is mentioned above. Whether the Bank may have given too great facilities for advances of this description in times past is another question; but in requiring a margin on the security for advances it is within the strict line of banking.

## CHAPTER XIII.

NOTE CIRCULATION OF THE BANK OF ENGLAND  
AND THE BULLION HELD BY THE BANK.

THE amount of notes issued by the Bank now comes under consideration,

Annual averages of the note circulation will be found in cols. 27, 29, and 31 of Table I., which give the country circulation, the metropolitan circulation, and the amount of both these united. The extension of this portion of the business of the Bank was very small down to the year 1864. The increase up to that date was only about 4 per cent., which had advanced to 26 per cent. in 1872. The note circulation is issued partly in London, partly at the provincial branches of the Bank. The circulation has been divided under these two heads down to the close of 1875. The returns accessible do not continue this division to a later date. Up to 1875 the increase in the circulation, as will be seen by col. 27, was rather in the country than in the London circulation, which will be found in col. 29. The provincial circulation formed in 1873 and 1874 about 39 per cent. of the total circulation of the Bank, while in 1844 it formed only 32 per cent. of it. As the whole note circulation of England and Wales, including the notes issued by the private and joint stock banks, was £28,420,000 in 1844, £32,500,000 in 1877, and £32,400,000 in 1878, so the Bank of England notes issued at the country branches have clearly taken the place of lapsed local note issues, and this accounts for their greater increase than that of the metropolitan circulation. The total increase is, however, small; smaller than the augmentation in any other portion of the business of the Bank of England, which these returns enable us to trace, and far smaller than the increase in the

metallic circulation of the country, which was estimated as being about 105 millions in 1872.\* Mr. Newmarch estimated the gold circulation as 36 millions in 1844†. While, therefore, there has been an increase in the amount of coin in circulation of something like 70 millions, the total note circulation of England and Wales was in 1878 only 4 millions larger than it was in 1844. It is also quite possible that this increase, small as it is, may prove to be only temporary, as fluctuations of from  $1\frac{1}{2}$  million to 2 millions are not uncommon between the average of one year and another in the note circulation, and the note circulation of the Bank of England was smaller during the earlier months of the year 1878 than during the corresponding months of 1877.

The following table shows the amounts and the proportions of the different denominations of notes composing the circulation of the Bank of England for the years 1856—1876, the earliest and the latest dates available. The large notes, it will be seen, form now a smaller part of the whole circulation than they did twenty years since. The notes from £20 to £100 have remained comparatively stationary; the greater part of the increase is among the smaller notes, especially among those for £5. These, doubtless, as mentioned previously, in a great degree take the place of the lapsed English country issues.

To complete this analysis, the annual average of bullion held by the Bank has been included. This average will be found in col. 33 Table I.; the columns marked 34, 35, 36, and 37, show the proportions which the bullion has borne to the liabilities on deposits and Bank post bills, to the note circulation, to the total liabilities under these two heads combined, and to the amount held in 1844. On the whole, the proportion of the bullion to the liabilities has been larger recently than during the earlier years over which this inquiry extends.

The Bank of England has sometimes held a consider-

\* Estimate based on Professor Jevons's statement, *Statistical Society's Journal*, 1868, p. 446, and account of "Coinage of Gold for Twenty-Four Years," *Economist*, 29th June, 1872.

† Tooke and Newmarch's "History of Prices," vol. vi., p. 701.

able amount of silver bullion. The Bank is empowered by the 3rd clause of the Act of 1844 to retain in the Issue Department an amount of silver bullion not exceeding one-fourth part of the gold coin and bullion held. The Bank has never held quite so large a proportion as this. The largest amount which it has held was £2,727,000 on October 3, 1846, when the gold bullion was quoted at £12,632,000. For the years from 1844 to 1847 the silver bullion formed, however, a considerable fraction of the total amount of bullion held, and the annual averages from 1844 to 1853 are given below. On August 20, 1853, the silver bullion ceased to be quoted in the returns of the Bank of England, though the heading and the space for the entry appear weekly in the return. Recently, the question, whether it might not be desirable that the Bank of England should hold silver bullion again, has been discussed in connection with the low quotation for the Indian exchanges. Should such an operation be undertaken by the Bank, it would probably now be under a guarantee from the Government, on whose behalf the business would be carried out. When the Bank Act was passed in 1844, "silver" was far more distinctly "money" throughout Europe than it is at the present time.

TABLE XIV.—ANNUAL AVERAGES OF SILVER BULLION HELD BY THE BANK OF ENGLAND DURING THE YEARS 1844—1853, AND PROPORTION OF THE SAME TO THE GOLD BULLION AND COIN HELD.

Year.	Annual Average of Silver Bullion.	Proportion per Cent. of Silver Bullion to Total Bullion Held.	Annual Average of Bullion, in- cluding Gold and Silver Coin in Bank- ing Depart- ment.	Proportion per Cent. of Gold and Coin to Total Bullion Held.	Annual Average of Total Bullion and Coin.
	£	%	£	%	£
1844	1,640,000	11	13,024,000	89	14,664,000
1845	1,511,000	10	13,732,000	90	15,243,000
1846	2,169,000	15	12,616,000	85	14,785,000
1847	1,373,000	13	9,055,000	87	10,428,000
1848	1,125,000	8	12,747,000	92	13,872,000
1849	336,000	2	14,825,000	98	15,161,000
1850	195,000	1	16,441,000	99	16,636,000
1851	34,000	—	14,530,000	100	14,564,000
1852	28,000	—	20,559,000	100	20,587,000
1853	19,000	—	17,497,000	100	17,516,000

A considerable increase, larger on the whole than in the reserve, but smaller than that in the deposits, will be observed to have taken place in the bullion held. It has been mentioned that there appears to be no relation whatever between the amount of notes issued and the rate of interest charged. Nor is it easy to trace an exact relation between the amount of bullion held and the Bank rate. The average held in 1868 was more than 20 millions, with discount rate of 2 per cent. ; the holding in 1873 was about 22 millions, with rate of  $4\frac{3}{4}$  per cent. ; the average held in 1876 was 28 millions, with a rate of about  $2\frac{1}{2}$  per cent. ; and the differences shown by the weekly returns are greater still. Thus 7 per cent. was charged on 9th November, 1872, with £19,750,000 bullion held on the date of the nearest return, while 3 per cent. was charged on 4th November, 1869, with £18,500,000, more than a million less, held in a similar way. Again, 3 per cent. was charged 10th February, 1875, with 20 millions of bullion, and 5 per cent. was charged 17th October, 1877, with nearly 23 millions of bullion. Though the total amount of bullion held by the Bank is a very important thing, the rate of discount charged does not appear to be regulated by it.

To render this more clear, the percentage borne by the annual average of bullion with the Bank of England to the annual average of the banking liabilities has been stated in col. 34 of Table I. The fluctuations shown are considerable ; the average, however, has hardly a tendency to increase, except in the years 1875-1876. In 1852 the average of bullion was  $2\frac{1}{2}$  per cent. more than the average of the banking liabilities. In 1847, 1856, 1864, and 1866, the average bullion was 65 per cent. of the banking liabilities. In 1857 it was only 56 per cent. of these. But though, generally speaking, the years when the average of bullion is low are those when the rate of interest is high, yet it is not possible to trace the same connection between the bullion and the rate of interest as between the banking reserve and the rate of interest.

120      *Denomination of Notes of Bank of England.*

**TABLE XV.—TABLE SHOWING COMPOSITION OF BANK OF ENGLAND NOTE CIRCULATION. Divided According to the Denomination of the Notes in Hands of the Public from 1856 to 1876.**

	£5 Notes.	Proportion per Cent. to 1856. 1856=100	Proportion per Cent. of £5 Notes to Total Circulation.	£10 Notes.	Proportion per Cent. to 1856. 1856=100	Proportion per Cent. of £10 Notes to Total Circulation.	£20 to £100 Notes.	Proportion per Cent. to 1856. 1856=100	Proportion per Cent. of £20 to £100 Notes to Total Circulation.
			%			%			%
1856	6,362,000	100	33	3,928,000	100	21	5,474,000	100	29
1857	6,386,000	100	34	3,959,000	101	21	5,530,000	101	29
1858	6,299,000	99	32	3,896,000	99	20	5,652,000	103	29
1859	6,678,000	105	32	4,145,000	105	20	6,121,000	112	29
1860	7,079,000	111	33	4,280,000	109	20	6,331,000	116	30
1861	6,673,000	105	33	4,045,000	103	20	5,947,000	108	30
1862	6,799,000	107	33	4,080,000	104	19	6,172,000	113	30
1863	6,755,000	106	33	3,949,000	100	19	6,142,000	112	30
1864	7,099,000	112	35	3,966,900	101	19	5,996,000	109	29
1865	7,403,000	116	35	4,085,000	104	19	6,153,000	112	29
1866	8,153,000	128	35	4,462,000	113	19	6,987,000	127	30
1867	8,290,000	130	35	4,492,000	114	19	7,020,000	128	30
1868	8,429,000	132	35	4,562,000	116	19	7,234,000	132	30
1869	8,572,000	135	37	4,514,000	115	19	6,940,000	127	30
1870	8,695,000	137	38	4,436,000	113	19	6,804,000	124	29
1871	9,182,000	145	37	4,592,000	117	19	7,272,000	133	30
1872	9,704,000	153	38	4,712,000	120	19	7,373,000	134	29
1873	10,045,000	158	39	4,716,000	120	18	7,313,000	133	29
1874	10,474,000	164	40	4,790,000	122	18	7,435,000	136	28
1875	10,877,000	171	40	4,834,000	126	18	7,740,000	141	28
1876	10,920,000	172	40	5,003,000	127	18	7,987,000	146	29

	£200 to £500 Notes.	Proportion per Cent. to 1856. 1856 = 100.	Proportion per Cent. of £200 to £500 Notes to Total Circulation.	£1,000 Notes.	Proportion per Cent. to 1856. 1856 = 100.	Proportion per Cent. of £1,000 Notes to Total Circulation.	Total Circulation.	Proportion per Cent. of Total Circulation to 1856. 1856 = 100.
			%			%		
1856	1,375,000	100	7	1,865,000	100	10	19,004,000	100
1857	1,365,000	99	7	1,796,000	96	9	19,036,000	100
1858	1,590,000	116	8	2,318,000	124	11	19,765,000	104
1859	1,610,000	117	8	2,256,000	121	11	20,810,000	109
1860	1,551,000	113	7	2,029,000	109	10	21,270,000	112
1861	1,444,000	105	7	1,911,000	102	10	20,020,000	105
1862	1,697,000	123	8	2,098,000	112	10	20,846,000	109
1863	1,740,000	127	8	2,089,000	112	10	20,675,000	108
1864	1,676,000	122	8	1,849,000	99	9	20,586,000	108
1865	1,694,000	123	8	1,761,000	94	9	21,096,000	111
1866	1,831,000	133	8	1,795,000	96	8	23,198,000	122
1867	1,827,000	133	8	1,834,000	98	8	23,463,000	123
1868	1,867,000	136	8	1,825,000	98	8	23,917,000	126
1869	1,761,000	128	7	1,667,000	89	7	23,454,000	123
1870	1,701,000	124	7	1,676,000	90	7	23,312,000	123
1871	1,774,000	129	7	1,783,000	96	7	24,603,000	130
1872	1,851,000	135	7	1,885,000	101	7	25,525,000	134
1873	1,784,000	130	7	1,810,000	97	7	25,668,000	135
1874	1,810,000	132	7	1,775,000	95	7	26,284,000	138
1875	1,947,000	141	7	1,849,000	99	7	27,347,000	144
1876	1,984,000	144	7	1,839,000	98	6	27,733,000	146

NOTE.—For years 1856 to 1859, inclusive, these averages represent the first 15 weeks of each year; from 1860 to 1876, inclusive, the averages are of the whole circulation of the year.

## CHAPTER XIV.

THE PROPORTION WHICH THE RESERVE HELD BY THE BANK OF ENGLAND BORE TO THE DEPOSITS AND TO THE BANKERS' BALANCES ON THE NEAREST RETURN TO THE DATE OF EACH CHANGE IN THE BANK RATE OF DISCOUNT FOR THE YEARS 1844—78, INCLUSIVE.

IN calculating the proportion of the reserve to the deposits, the gold and silver coin held in the Banking Department, as well as the reserve of notes, have been included in the reserve. The liabilities in the shape of Bank post bills are added to the deposits in the calculation mentioned. This is because the amount of the reserve of notes alone is given in the returns, and the short bills are not included in them. In forming an estimate of the liabilities of the Bank of England both these items should be taken into account, and they have therefore been included in order to insure accuracy in the statement. The influence, however, of these sums is but small. The annual averages showing the extent of the circulation of short bills are in Table I., col. 3.



This statement is given in two forms. In the first, the proportions are arranged according to the dates the nearest to those on which the changes occurred. In the second, the return for each date over which a particular rate extends are arranged in the order of the highest proportion of reserve to deposits first, the other returns following to the minimum of each rate.

It will be observed that the proportion of the reserve to the liabilities was as follows during the sharpest pressure of the last three crises :—

23rd October, 1847.—Reserve 14 per cent. of the liabilities. The London bankers' balances formed 81 per cent. of the reserve. Bank rate 8 per cent.

11th November, 1857.—Reserve 8 per cent. of the liabilities, but only sufficient to meet 31 per cent. of the bankers' balances. Bank rate 10 per cent.

16th May, 1866.—Reserve 5 per cent. of the liabilities, but only sufficient to meet 15 per cent. of the bankers' balances. Bank rate 10 per cent.

The increased severity of each crisis will be found marked in the smaller proportion of the reserve on each of the later occasions, both to the liabilities and the bankers' balances. The principle of the Act of 1844 was not actually infringed at any of these three dates.

It appears desirable, while investigating this point, to give an arrangement of these proportions in order of dates, as well as according to each rate, because the one arrangement is of very material assistance in understanding the other. Thus, in looking at the proportion of reserve to deposits during the prevalence of the rate of 4 per cent., we find that rate charged on 2nd August, 1865, with no greater reserve than 31 per cent. of the deposits; a proportion at which, from the information supplied by other portions of this table, it might have been more naturally expected that 7, 8, or even 9 per cent. would have been charged. On looking to the chronological table, the explanation of this becomes clear. 2nd August, 1865, marks nearly the com-

mencement of that rise in the rate of discount which culminated in the crisis of 1866. Barely six weeks before, there had been a reserve of 45 per cent., with a rate of 3 per cent., and during the whole of the twelve months preceding and following the Bank rate had been subject to very extraordinary fluctuations. It is perfectly true that the Bank rate has in many cases fluctuated considerably, while the average of the proportions of the reserve has remained almost the same. Thus, by looking down the general averages of the proportion of the reserve to deposits, on the nearest dates corresponding with each change, it will be seen that three different rates, 6,  $5\frac{1}{2}$ , and 5 per cent., have all been charged, with an average proportion of reserve of about 36 per cent.; and, what might have been as little expected, the fluctuations of the reserve have been greater while 5 per cent. has been charged (from 50 to 20 per cent.) than while 6 per cent. has been charged (in this case from 48 to 24 per cent.). Still, though individual cases may be found which differ from the average, yet in general a low Bank reserve will necessarily be found accompanied by a high rate of interest.

In order to give a more distinct idea of the magnitude of the sums concerned, and of their proportions to the general business of the country, the amounts of the reserve of the Bank of England, of the London bankers' balances, and of the weekly returns of the Clearing House at the nearest date to each alteration of the Bank of England rate during the year 1877 are added in Table XVI., and of the reserve and the weekly returns of the Clearing House at each corresponding date in 1878. We see from these figures how great at any moment may be the demands on the reserve of the Bank of England.

Tables XVII. and XVIII. follow, showing the proportion of the reserve of the Bank of England to the liabilities, and of the balances of the London bankers to the reserve at the nearest date given to every change in the rate of interest from 5th September, 1844, to 31st December, 1878.

TABLE XVI.—STATEMENT OF THE ALTERATIONS IN THE BANK OF ENGLAND RATE OF DISCOUNT FOR 1877-78, WITH THE RESERVE OF THE BANK OF ENGLAND, THE LONDON BANKERS' BALANCES, AND THE CLEARING HOUSE RETURNS, AT THE NEAREST DATE TO EACH CHANGE. (London Bankers' Balances not given for 1878.)

1877.				
Date.	Rate.	Reserve of Bank of England.	London Bankers' Balances.	Clearing House Returns.
	%	£	£	£
3rd May .....	3	10,926,636	8,926,000	18,389,000
5th July .....	2½	13,174,000	10,890,000	11,888,000
12th „ .....	2	13,911,797	12,139,000	14,588,000
28th August .....	3	12,128,674	9,870,000	12,665,000
4th October .....	4	9,721,173	8,820,000	15,024,000
11th „ .....	5	9,431,126	8,876,000	13,364,000
29th November...	4	11,547,182	9,555,000	26,186,000
1878.				
Date.	Rate.	Reserve of Bank of England.	London Bankers' Balances.	Clearing House Returns.
	%	£	£	£
9th January ...	3	11,902,216	Not Published for these dates.	15,311,000
30th „ ...	2	12,981,690		14,263,000
27th March .....	3	11,916,320		12,887,000
29th May .....	2½	11,338,102		14,135,000
26th June .....	3	10,858,129		13,916,000
3rd July .....	3½	9,081,692		18,706,000
31st „ .....	4	8,903,407		39,708,000
12th August .....	5	8,912,764		12,554,000
14th October.....	6	8,517,315		13,542,000
20th November...	5	12,310,802		12,772,000

TABLE XVII.—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND TO LIABILITIES, AND OF THE BALANCES OF LONDON BANKERS TO THE RESERVE ON THE NEAREST DATE GIVEN TO EVERY CHANGE IN THE RATE OF INTEREST, FROM 5TH SEPTEMBER, 1844, TO 31ST DECEMBER, 1878. Arranged According to the Dates when Changes Occurred.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
2½*	1844	5th September ...	68	11	—
3	1845	16th October .....	38	42	—
3½	"	6th November ...	38	22	—
3	1846	27th August .....	58	19	—
3½	1847	14th January ...	44	19	—
4	"	21st " .....	43	23	—
5	"	8th April .....	20	74	—
5½	"	5th August .....	36	26	—
6	"	30th September ...	26	23	—
8	"	25th October .....	13	84	—
7	"	22nd November ...	30	36	—
6	"	2nd December ...	36	27	—
5	"	23rd " ...	46	17	—
4	1848	27th January ...	52	44	—
3½	"	15th June .....	63	16	—
3	"	2nd November ...	61	33	—
2½	1849	22nd November ...	66	13	—
3	1850	26th December ...	48	11	—
2½	1852	1st January ...	61	12	—
2	"	22nd April .....	64	40	—
2½	1853	6th January ...	48	35	—
3	"	20th " ...	49	24	—
3½	"	2nd June .....	47	27	—
4	"	1st September ...	47	21	—
4½	"	15th " ...	40	27	—
5	"	29th " ...	34	37	—
5½	1854	11th May .....	37	43	—
5	"	3rd August .....	49	33	—
4½	1855	5th April .....	50	35	—
4	"	3rd May .....	52	37	—
3½	"	14th June .....	63	30	—
4	"	6th September ...	41	38	—
4½	"	13th " ...	40	30	—
5	"	27th " ...	33	43	—
5½	"	4th October .....	32	45	—
7	"	18th " .....	29	52	—

\* This is the first statement in the Returns, and marks the point at which the Act of 1844 came into operation.

**TABLE XVII. Continued.—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Dates.**

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
6	1856	22nd May .....	36	75	—
5	"	29th " .....	41	51	—
4½	"	26th June .....	49	34	—
5	"	2nd October .....	23	67	—
7	"	9th " .....	21	67	—
6½	"	4th December ...	35	47	—
6	"	18th " ...	37	39	—
6½	1857	2nd April .....	22	60	—
6	"	18th June .....	38	38	—
5½	"	16th July .....	42	55	—
6	"	8th October .....	24	56	—
7	"	15th " .....	23	89	—
8	"	19th " .....	24	90	—
9	"	5th November ...	15	—	80
10	"	9th " ...	7	—	30
8	"	24th December ...	34	78	—
6	1858	7th June .....	33	84	—
5	"	14th " .....	35	—	80
4	"	28th " .....	46	86	—
3½	"	4th February ...	47	76	—
3	"	11th " ...	53	63	—
2½	"	9th December ...	60	26	—
3½	1859	28th April .....	47	46	—
4½	"	5th May .....	42	55	—
3½	"	2nd June .....	46	59	—
3	"	9th " .....	47	52	—
2½	"	14th July .....	48	57	—
3	1860	19th January .....	40	54	—
4	"	31st " .....	37	45	—
4½	"	29th March .....	35	35	—
5	"	12th April .....	26	75	—
4½	"	10th May .....	38	49	—
4	"	24th " .....	43	47	—
4½	"	8th November ...	80	66	—
5	"	13th " ...	37	55	—
6	"	15th " ...	37	55	—
5	"	29th " ...	41	59	—
6	"	31st December ...	31	59	—
7	1861	7th January .....	31	98	—
8	"	14th February ...	36	55	—
7	"	21st March .....	41	44	—
6	"	4th April .....	38	51	—
5	"	11th " .....	40	69	—
6	"	16th May .....	36	53	—
5	"	1st August .....	39	61	—
4½	"	15th " .....	42	58	—

TABLE XVII. *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Dates.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
4	1861	29th August .....	46	60	—
3½	"	19th September ...	48	52	—
3	"	7th November ...	43	62	—
2½	1862	9th January .....	44	71	—
3	"	22nd May .....	47	48	—
2½	"	10th July .....	42	69	—
2	"	24th " .....	45	68	—
3	"	30th October .....	39	65	—
4	1863	15th January .....	39	69	—
5	"	28th " .....	40	52	—
4	"	19th February ...	46	45	—
3½	"	23rd April .....	43	62	—
3	"	30th " .....	43	46	—
3½	"	16th May .....	41	49	—
4	"	21st " .....	38	53	—
5	"	2nd November ...	36	76	—
6	"	5th " .....	31	72	—
7	"	2nd December ...	32	68	—
8	"	3rd " .....	32	68	—
7	"	24th " .....	39	49	—
8	1864	20th January .....	33	61	—
7	"	11th February ...	38	47	—
6	"	25th " .....	43	47	—
7	"	16th April .....	32	75	—
8	"	2nd May .....	28	66	—
9	"	5th " .....	28	66	—
8	"	19th " .....	33	71	—
7	"	26th " .....	37	64	—
6	"	16th June .....	40	54	—
7	"	25th July .....	31	77	—
8	"	4th August .....	29	85	—
9	"	8th September...	35	69	—
8	"	10th November ...	40	85	—
7	"	24th " .....	45	70	—
6	"	15th December ...	48	50	—
5½	1865	12th January .....	39	83	—
5	"	26th " .....	44	62	—
4½	"	3rd March .....	44	53	—
4	"	30th " .....	42	47	—
4½	"	4th May .....	36	65	—
4	"	25th " .....	41	54	—
3½	"	1st June .....	41	56	—
3	"	15th " .....	44	46	—
3½	"	27th July .....	33	81	—
4	"	3rd August .....	26	78	—
4½	"	28th September...	33	68	—
5	"	2nd October .....	24	82	—

**TABLE XVII.** *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND &c. Arranged According to Dates.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
6	1865	5th October .....	24	82	—
7	"	7th " .....	24	86	—
6	"	23rd November ...	43	57	—
7	"	28th December ...	34	65	—
8	1866	4th January .....	26	—	97
7	"	22nd February ...	45	57	—
6	"	15th March .....	45	51	—
7	"	3rd May .....	30	89	—
8	"	8th " .....	29	86	—
9	"	11th " .....	29	86	—
10	"	12th " .....	29	86	—
8	"	16th August .....	21	—	69
7	"	23rd " .....	24	—	68
6	"	30th " .....	30	—	87
5	"	6th September ...	30	—	96
4½	"	27th " .....	36	77	—
4	"	8th November ...	38	75	—
3½	"	20th December ...	44	50	—
3	1867	7th February ...	45	63	—
2½	"	30th May .....	47	49	—
2	"	25th July .....	53	64	—
2½	1868	19th November ...	40	61	—
3	"	3rd December ...	39	64	—
4	1869	1st April .....	34	69	—
4½	"	6th May .....	35	68	—
4	"	10th June .....	44	65	—
3½	"	24th " .....	48	53	—
3	"	15th July .....	44	69	—
2½	"	19th August .....	55	55	—
3	"	4th November ...	44	57	—
3½	1870	21st July .....	43	66	—
4	"	23rd " .....	43	66	—
5	"	28th " .....	36	80	—
6	"	4th August .....	34	85	—
5½	"	11th " .....	38	85	—
4½	"	18th " .....	42	80	—
4	"	25th " .....	45	79	—
3½	"	1st September ...	46	72	—
3	"	15th " .....	51	59	—
2½	"	29th " .....	55	48	—
3	1871	2nd March .....	41	65	—
2½	"	13th April .....	43	58	—
2½	"	15th June .....	59	38	—
2	"	13th July .....	51	74	—
3	"	21st September ...	50	49	—

TABLE XVII. *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to the Dates

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
4	1871	28th September...	37	70	—
5	"	7th October.....	32	—	91
4	"	16th November...	49	83	—
3½	"	30th "...	52	62	—
3	"	14th December...	54	47	—
3½	1872	4th April.....	35	60	—
4	"	11th ".....	33	80	—
5	"	9th May.....	33	75	—
4	"	30th ".....	40	58	—
3½	"	13th June.....	45	47	—
3	"	20th ".....	46	45	—
3½	"	18th July.....	41	70	—
4	"	18th September...	39	69	—
4½	"	26th ".....	37	71	—
5	"	3rd October.....	32	79	—
6	"	10th ".....	32	93	—
7	"	9th November...	35	70	—
6	"	28th ".....	46	63	—
5	"	12th December...	50	55	—
4½	1873	9th January.....	49	68	—
4	"	23rd ".....	53	50	—
3½	"	30th ".....	54	46	—
4	"	26th March.....	38	54	—
4½	"	8th May.....	33	73	—
5	"	10th ".....	33	73	—
6	"	17th ".....	32	76	—
7	"	4th June.....	32	74	—
6	"	12th ".....	36	66	—
5	"	10th July.....	43	83	—
4½	"	17th ".....	46	74	—
4	"	24th ".....	49	71	—
3½	"	31st ".....	50	63	—
3	"	21st August.....	53	62	—
4	"	25th September...	44	80	—
5	"	29th ".....	34	—	94
6	"	14th October.....	31	—	83
7	"	18th ".....	31	—	83
8	"	1st November...	37	96	—
9	"	7th ".....	35	—	90
8	"	20th ".....	41	93	—
6	"	27th ".....	46	80	—
5	"	4th December...	45	79	—
4½	"	11th ".....	48	70	—
4	1874	8th January.....	43	90	—
3½	"	15th ".....	46	84	—
4	"	30th April.....	31	73	—
3½	"	28th May.....	43	69	—
3	"	4th June.....	44	64	—



**TABLE XVII. Continued.—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Dates.**

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
2½	1874	18th June .....	48	63	—
3	"	30th July .....	47	75	—
4	"	6th August .....	41	84	—
3½	"	20th " .....	47	76	—
3	"	27th " .....	48	77	—
4	"	15th October .....	36	—	85
5	"	16th November ...	40	90	—
6	"	30th " .....	41	87	—
5	1875	7th January .....	40	98	—
4	"	14th " .....	45	85	—
3	"	28th " .....	50	82	—
3½	"	18th February ...	41	80	—
3	"	8th July .....	42	—	95
2½	"	29th " .....	51	95	—
2	"	12th August .....	52	89	—
2½	"	7th October .....	39	—	93
3½	"	14th " .....	35	—	79
4	"	21st " .....	36	—	85
3	"	18th November ...	43	94	—
4	"	30th December ...	33	—	97
5	1876	6th January .....	29	97	—
4	"	27th " .....	43	83	—
3½	"	23rd March .....	46	64	—
3	"	6th April .....	45	71	—
2	"	20th " .....	48	89	—
3	1877	3rd May .....	37	82	—
2½	"	5th July .....	42	82	—
2	"	12th " .....	46	87	—
3	"	28th August .....	44	81	—
4	"	4th October .....	37	91	—
5	"	11th " .....	35	94	—
4	"	29th November ...	47	83	—
3	1878	9th January .....	40	—	—
2	"	30th " .....	44	—	—
3	"	27th March .....	33	—	—
2½	"	29th May .....	40	—	—
3	"	26th June .....	36	—	—
3½	"	3rd July .....	31	—	—
4	"	31st " .....	34	—	—
5	"	12th August .....	36	—	—
6	"	14th October .....	28	—	—
5	"	20th November ...	41	—	—

TABLE XVIII.—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND TO LIABILITIES, AND OF THE BALANCES OF LONDON BANKERS TO THE RESERVE ON THE NEAREST DATE GIVEN TO EVERY CHANGE IN THE RATE OF INTEREST, FROM 5TH SEPTEMBER, 1844, TO 31ST DECEMBER, 1878. Arranged from the Highest Proportion of the Reserve to the Lowest.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
10	1866	12th May .....	29	86	—
"	1857	9th November ...	7	—	30
9	1864	8th September...	35	69	—
"	1873	7th November ...	35	—	90
"	1866	11th May .....	29	86	—
"	1864	5th " .....	28	66	—
"	1857	5th November ...	15	—	80
8	1873	20th " ...	41	93	—
"	1864	10th " ...	40	85	—
"	1873	1st " ...	37	96	—
"	1861	14th February ...	36	55	—
"	1857	24th December ...	34	78	—
"	1864	20th January.....	33	61	—
"	"	19th May .....	33	71	—
"	1863	3rd December ...	32	68	—
"	1864	4th August .....	29	85	—
"	1866	8th May .....	29	86	—
"	1864	2nd " .....	28	66	—
"	1866	4th January.....	26	—	97
"	1857	19th October .....	24	90	—
"	1866	16th August .....	21	—	69
"	1847	25th October .....	13	84	—
7	1864	24th November ...	45	70	—
"	1866	22nd February ...	45	57	—
"	1861	21st March .....	41	44	—
"	1863	24th December ...	39	49	—
"	1864	11th February ...	38	47	—
"	"	26th May .....	37	64	—
"	1872	9th November ...	35	70	—
"	1865	28th December ...	34	65	—
"	1863	2nd December ...	32	68	—
"	1864	16th April .....	32	75	—
"	1873	4th June .....	32	74	—
"	1861	7th January.....	31	98	—
"	1864	25th July .....	31	77	—
"	1873	18th October .....	31	—	83
"	1847	22nd November ...	30	36	—
"	1866	3rd May .....	30	89	—
"	1855	18th October .....	29	52	—
"	1866	9th October .....	21	67	—
"	1865	7th " .....	24	86	—
"	1866	23rd August .....	24	—	68
"	1857	15th October .....	23	89	—
6½	1856	4th December ...	35	47	—
"	1857	2nd April .....	33	60	—
6	1864	15th December ...	48	50	—

TABLE XVIII. *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Proportion of Reserve.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
6	1872	28th November ...	46	63	—
"	1873	27th " ...	46	80	—
"	1866	15th March ...	45	51	—
"	1864	25th February ...	43	47	—
"	1865	23rd November ...	43	57	—
"	1874	30th " ...	41	87	—
"	1864	16th June ...	40	54	—
"	1857	18th " ...	38	38	—
"	1861	4th April ...	38	51	—
"	1856	18th December ...	37	39	—
"	1860	15th November ...	37	55	—
"	1847	2nd December ...	36	27	—
"	1856	22nd May ...	36	75	—
"	1861	16th " ...	36	53	—
"	1873	12th June ...	36	66	—
"	1870	4th August ...	34	85	—
"	1858	7th January ...	33	84	—
"	1872	10th October ...	32	93	—
"	1873	17th May ...	32	76	—
"	1860	31st December ...	31	59	—
"	1863	5th November ...	31	72	—
"	1873	14th October ...	31	—	83
"	1866	30th August ...	30	—	87
"	1878	14th October ...	28	—	—
"	1847	30th September ...	26	23	—
"	1857	8th October ...	24	56	—
"	1865	5th " ...	24	82	—
5½	1857	16th July ...	42	55	—
"	1865	12th January ...	39	83	—
"	1870	11th August ...	38	85	—
"	1854	11th May ...	37	43	—
"	1847	5th August ...	36	24	—
"	1855	4th October ...	32	45	—
5	1872	12th December ...	50	55	—
"	1854	3rd August ...	49	33	—
"	1847	23rd December ...	46	17	—
"	1873	4th " ...	45	79	—
"	1865	26th January ...	44	62	—
"	1873	10th July ...	43	83	—
"	1856	29th May ...	41	51	—
"	1860	29th November ...	41	59	—
"	1878	20th " ...	41	—	—
"	1861	11th April ...	40	69	—
"	1863	28th January ...	40	52	—
"	1874	16th November ...	40	90	—
"	1875	7th January ...	40	98	—
"	1861	1st August ...	39	61	—
"	1860	13th November ...	37	55	—
"	1863	2nd " ...	36	76	—

TABLE XVIII. *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Proportion of Reserve.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
5	1870	28th July .....	36	80	—
"	1878	12th August .....	36	—	—
"	1858	14th January .....	35	—	80
"	1877	11th October .....	35	94	—
"	1853	29th September...	34	37	—
"	1873	29th " .....	34	—	94
"	1855	27th " .....	33	43	—
"	1872	9th May .....	33	75	—
"	1873	10th " .....	33	73	—
"	1871	7th October .....	32	—	91
"	1872	3rd " .....	32	79	—
"	1866	6th September...	30	—	96
"	1876	6th January .....	29	97	—
"	1860	12th April .....	26	75	—
"	1865	2nd October .....	24	82	—
"	1856	2nd October .....	23	67	—
"	1847	8th April .....	20	74	—
4½	1860	8th November...	80	66	—
"	1855	5th April .....	50	35	—
"	1856	26th June .....	49	34	—
"	1873	9th January .....	49	68	—
"	"	11th December...	48	70	—
"	"	17th July .....	46	74	—
"	1865	3rd March .....	44	53	—
"	1859	5th May .....	42	55	—
"	1861	15th August .....	42	58	—
"	1870	18th " .....	42	80	—
"	1853	15th September...	40	27	—
"	1855	13th " .....	40	30	—
"	1860	10th May .....	38	49	—
"	1872	26th September...	37	71	—
"	1865	4th May .....	36	65	—
"	1866	27th September...	36	77	—
"	1860	29th March .....	35	35	—
"	1869	6th May .....	35	68	—
"	1865	28th September...	33	68	—
"	1873	8th May .....	33	73	—
4	1873	23rd January .....	53	50	—
"	1848	27th " .....	52	44	—
"	1855	3rd May .....	52	37	—
"	1871	16th November...	49	83	—
"	1873	24th July .....	49	71	—
"	1853	1st September...	47	21	—
"	1877	29th November...	47	83	—
"	1858	28th January .....	46	86	—
"	1861	29th August .....	46	60	—
"	1863	19th February...	46	45	—
"	1870	25th August .....	45	79	—
"	1875	14th January .....	45	85	—

**TABLE XVIII. Continued.**—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Proportion of Reserve.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
<b>4</b>	1873	25th September...	44	80	—
"	1869	10th June .....	44	65	—
"	1847	21st January .....	43	23	—
"	1860	24th May .....	43	47	—
"	1870	23rd July .....	43	66	—
"	1874	8th January .....	43	90	—
"	1876	27th " .....	43	83	—
"	1865	30th March .....	42	47	—
"	1855	6th September...	41	38	—
"	1865	25th May .....	41	54	—
"	1874	6th August .....	41	84	—
"	1872	30th May .....	40	58	—
"	1863	15th January .....	39	69	—
"	1872	18th September...	39	69	—
"	1863	21st May .....	38	53	—
"	1866	8th November ...	38	75	—
"	1873	26th March .....	38	54	—
"	1860	31st January .....	37	45	—
"	1871	28th September...	37	70	—
"	1877	4th October .....	37	91	—
"	1874	15th " .....	36	—	85
"	1875	21st " .....	36	—	85
"	1869	1st April .....	34	69	—
"	1878	31st July .....	34	—	—
"	1872	11th April .....	33	80	—
"	1875	30th December ...	33	—	97
"	1874	30th April .....	31	73	—
"	1865	3rd August .....	26	78	—
<b>3½</b>	1848	15th June .....	63	16	—
"	1855	14th " .....	63	30	—
"	1873	30th January .....	54	46	—
"	1871	30th November ...	52	62	—
"	1873	31st July .....	50	63	—
"	1861	19th September...	48	52	—
"	1869	24th June .....	48	53	—
"	1853	2nd " .....	47	27	—
"	1858	4th February ...	47	76	—
"	1859	28th April .....	47	46	—
"	1874	20th August .....	47	76	—
"	1859	2nd June .....	46	59	—
"	1870	1st September...	46	72	—
"	1874	15th January .....	46	84	—
"	1876	23rd March .....	46	64	—
"	1872	13th June .....	45	47	—
"	1847	14th January .....	44	19	—
"	1866	20th December ...	44	50	—
"	1863	23rd April .....	43	62	—
"	1870	21st July .....	43	66	—
"	1874	28th May .....	43	69	—
"	1863	16th " .....	41	49	—

TABLE XVIII. *Continued.*—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Proportion of Reserve.

Bank Rate.	Date.	Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
3½	1865 1st June .....	41	56	—
"	1872 18th July .....	41	70	—
"	1875 18th February ...	41	80	—
"	1845 6th November ...	38	22	—
"	1872 4th April .....	35	60	—
"	1865 27th July .....	33	81	—
"	1875 14th October .....	35	—	79
"	1878 3rd July .....	31	—	—
3	1848 2nd November ...	61	33	—
"	1846 27th August .....	58	19	—
"	1871 14th December ...	54	47	—
"	1858 11th February ...	53	63	—
"	1873 21st August .....	53	62	—
"	1870 15th September ...	51	59	—
"	1871 21st " .....	50	49	—
"	1875 28th January .....	50	82	—
"	1853 20th " .....	49	24	—
"	1850 26th December ...	48	11	—
"	1874 27th August .....	48	77	—
"	1859 9th June .....	47	52	—
"	1862 22nd May .....	47	48	—
"	1874 30th July .....	47	75	—
"	1872 20th June .....	46	45	—
"	1867 7th February ...	45	63	—
"	1876 6th April .....	45	71	—
"	1865 15th June .....	44	46	—
"	1869 15th July .....	44	69	—
"	1869 4th November ...	44	57	—
"	1874 4th June .....	44	64	—
"	1877 28th August .....	44	81	—
"	1861 7th November ...	43	62	—
"	1863 30th April .....	43	46	—
"	1875 18th November ...	43	94	—
"	1875 8th July .....	42	—	95
"	1871 2nd March .....	41	65	—
"	1860 19th January .....	40	54	—
"	1878 9th " .....	40	—	—
"	1862 30th October .....	39	65	—
"	1868 3rd December ...	39	64	—
"	1845 16th October .....	38	42	—
"	1877 3rd May .....	37	82	—
"	1878 26th June .....	36	—	—
"	" 27th March .....	33	—	—
2½	1844 5th September ...	68	11	—
"	1849 22nd November ...	66	13	—
"	1852 1st January .....	61	12	—
"	1858 9th December ...	60	26	—
"	1869 19th August .....	55	55	—
"	1870 29th September ...	55	48	—

**TABLE XVIII. Continued.**—PROPORTIONS OF THE RESERVE OF THE BANK OF ENGLAND, &c. Arranged According to Proportion of Reserve.

Bank Rate.	Date.		Proportion per Cent. of Reserve to Liabilities.	Proportion per Cent. of London Bankers' Balances to Reserve.	Proportion per Cent. of Reserve to London Bankers' Balances.
2½	1875	29th July .....	51	95	—
"	1853	6th January .....	48	35	—
"	1859	14th July .....	48	57	—
"	1874	18th June .....	48	63	—
"	1867	30th May .....	47	49	—
"	1862	9th January .....	44	71	—
"	1871	13th April .....	43	58	—
"	1862	10th July .....	42	69	—
"	1877	5th " .....	42	82	—
"	1868	19th November ...	40	61	—
"	1878	29th May .....	40	—	—
"	1875	7th October .....	39	—	93
2½	1871	15th June .....	59	38	—
2	1852	22nd April .....	64	40	—
"	1867	25th July .....	53	64	—
"	1875	12th August .....	52	89	—
"	1871	13th July .....	51	74	—
"	1876	20th April .....	48	89	—
"	1877	12th July .....	46	87	—
"	1862	24th " .....	45	68	—
"	1878	30th January .....	44	—	—

Prior to 31st October, 1857, the returns of the Bank of England were dated to Saturday, subsequent to that date to Wednesday.

## GENERAL AVERAGES OF PRECEDING TABLES.

Bank Rate.	Times Changed.	Average Proportion per Cent. of Reserve to Liabilities.	Average Proportion per Cent. of London Bankers' Balances to Reserve.
10	2	18	86
9	5	28	73
8	15	30	78
7	21	32	67
6½	2	29	53
6	28	36	61
5½	6	37	56
5	33	36	67
4½	20	43	58
4	40	56	64
3½	30	45	56
3	35	45	57
2½	18	50	50
2½	1	59	38
2	8	50	73
Number of changes in rate .....	264	—	—

## CHAPTER XV.

## CONCLUSION.

THERE are several other points in the statements contained in this volume which may be indicated, though they cannot be followed out further. For instance, it will be found that the amount of the bankers' balances with the Bank of England on the second return in each half-year, that is to say, the second return in the months of January and July, is considerably above the total average of each year, and there is a very marked augmentation in these amounts during the later compared with the earlier years included in the returns. This periodic fluctuation is undoubtedly connected with the payments of the dividends on the funds, and on other fixed securities, and a similar though smaller fluctuation is observable at the corresponding dates in April and October. This increase is probably due to larger amounts of stock held as reserve by the banks of the country generally, and also to larger amounts of dividends received on account of customers. We must bear in mind that the years from 1844 to 1878 have witnessed a very large increase indeed in the business of



banking in the United Kingdom. Many persons have accounts with a bank now, who—or their predecessors in similar positions in life—would not have had banking accounts at the earlier date. The increase on the dates mentioned marks this alteration in the habits of the country, and is interesting on that account.

This point is mentioned, among others, which a careful investigation of the returns relating to the Bank of England will enable the reader to trace. Many matters connected with the conduct of business, many incidents in the transactions of the day which have influenced the adoption of a particular rate on a given occasion, cannot be recorded in the returns from which the figures in this statement have been condensed. We have in this shape but the dry bones, so to speak, of events, all-important at the time to the well-being of the country; but it is hoped that this analysis will be of service in assisting us to thread the history of the past, and may also be of some use in enabling us to see what is needed at the present time.

The subject which was proposed to be investigated in preparing this statement, was the relation of the reserve to the current rate of interest charged. A study of this analysis shows the truth of the usual conclusion, that the rates of discount charged by the Bank of England are regulated more by the proportion of the reserve to liabilities than by any other consideration. That the amount of the bankers' balances, and the proportion they bear to the reserve, may have a bearing on the rates charged is very probable, though their influence is not clearly marked in the tables. The state of the foreign exchanges, quoted for the great European centres of business—Paris, Amsterdam, Hamburgh, and, we must now add, Frankfort and Berlin, as representative of Germany—influences the Bank rate very greatly, though this does not show so much on the surface, as an unfavourable exchange is accompanied by an outflow of bullion, and hence by an immediate diminution of the reserve. It is well known that the directors of the Bank, when fixing the rate to be charged, take the state of the foreign ex-

changes into careful consideration. The Bank possesses still, though other powerful banking institutions have grown up round it, and appear at first sight to overpower it, so strong an influence over our money market that by setting the rate high enough it can always control the foreign exchanges; hence foreign exchanges generally appear to follow, rather than to lead, the Bank of England rate of discount. No correspondence whatever can be traced between the amount of notes issued and the rate of interest charged. Nor does any other branch of business conducted by the Bank appear to affect it in any way. The proportion of the reserve to the liabilities is the cardinal point on which the rate of interest charged by the Bank turns.

We may observe in this fact a remarkable and exact instance of the operation of one of the principal laws of economic science—the law of demand and supply. The rate of interest generally, as Mr. Ricardo has stated in his “*Principles of Political Economy*,” “is regulated by the rate of profits which can be made by the employment of capital.”\*

Mr. Ricardo adds, what is equally obvious: “The rate of interest, though ultimately and permanently governed by the rate of profit, is, however, subject to temporary variations from other causes.”† A diminished or increased demand is chief among these, and the extent of these temporary variations is best exhibited in the position of the Bank of England reserve, from the fact that the Bank of England also holds the reserve of the other banks in the country. Within the period over which the investigation extends, the amount of money in the country generally has enormously increased. The gold in circulation is nearly three times the amount it was some thirty years ago. Yet, while the amount of deposits held by the banks of the country—that is to say, of loanable capital—has also been greatly increased, we have far more frequent and rapid

\* Page 220, edition 1852.

† Page 179.

variations in the Bank rate of interest, and often also a higher rate.

The explanation of this is that the total amount held in reserve has not increased in a like proportion with the demands which may be made on the reserve; meanwhile, from the altered character of that reserve, there is a greater liability to sudden demands, owing to the vast increase in banking deposits in the United Kingdom during the last five-and-twenty years.

Mr. Newmarch estimated these deposits in 1851 at 260 millions; to which may be added for foreign and colonial banks 25 millions, an aggregate of something like 300 millions. The corresponding figures at the present time are probably between 650 and 700 millions.

This very great increase in the amounts held on deposit during the last five-and-twenty years may at any moment give occasion for a very considerable demand on the banking reserve. The reserve held by the Bank itself is now somewhat smaller in proportion to its own liabilities than it was in the earlier years over which this survey extends. Meanwhile, the general banking liabilities of the country have enormously increased.

To throw the whole of the duty of maintaining an adequate reserve on the Bank of England is obviously unfair, yet this is the tendency of business in recent years. The keeping a larger supply of unused money would also undoubtedly tend to more equable rates, which would be of great advantage to the commerce of the country. Yet we do not seem nearer to the attainment of a really sufficient reserve than we were when the Bank Act of 1844 was passed. To provide a compulsory amount of reserve by legal enactment would be undesirable, but the object might be arranged without difficulty if an agreement on the subject by the principal banks of the country could be attained.

It is not, in any time of pressure, the amount of capital in the country which is taken into account, or which governs the immediate price of money. It is

not the amount in circulation. It is the actual amount of reserve in hand at the time which decides the stability of the money market. Many exceptional causes, it will be said, have led to the recent fluctuations in the money market, to the vast number of changes in the rate of interest in recent years. But with the immensely extended commerce now carried on by this country, such causes, or similar causes, will be certain continually to manifest themselves, and the only safe course is to be prepared to meet them. To do this we must be prepared to increase the amount of "unused" capital in the country, now so exceedingly small. It is most desirable that proper steps should be taken for the attainment of this, which is essential to the security of banking in this country. It is hoped that the preceding pages may assist to throw some light on the present bearings of this important question. In banking, the only secure position is that of strength, and that strength is connected most closely with the maintenance of an adequate reserve.

THE END.



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